

From kl0sw at yahoo.com Mon Apr 1 21:34:29 2013
From: kl0sw at yahoo.com (Frank Henrikson)
Date: Mon, 1 Apr 2013 18:34:29 -0700 (PDT)
Subject: [BoatAnchors] BoatAnchors INFO Request
Message-ID: <1364866469.69520.YahooMailNeo@web163602.mail.gq1.yahoo.com>

Many years ago I read an article in the early 50's in my Dad's Ham Magazine about a 75 meter AM transmitter built in a 3" square case about 12" long with tube sticking out the rear, the front face had a mike plug on the lower part and a crystal plug on the upper part. Transmitter was mounted under the dash and there was a Gonset converter mounted on the steering column in an early 50's vintage car. I am looking for the article if anyone has ran across it.

?

Thanks

?

Frank Henrikson?? KL0SW
Soldotna Alaska

From arc5 at ix.netcom.com Tue Apr 2 07:54:51 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Tue, 2 Apr 2013 06:54:51 -0500
Subject: [BoatAnchors] WTD: RU Receiver Plug-In Coils
Message-ID: <632D0E80D3A345D9A718CAEBD101AA5C@CompaqSR5710F>

Need single-band receiver plug-in coils
for the WWII GF / RU project,
types C, G, H, K and N.
Any RU- version coil is acceptable.
I have WWII trades (nothing "modern" or commercial) if interested.

73 DE Dave AB5S

From navy.radio at gmail.com Tue Apr 2 12:50:57 2013
From: navy.radio at gmail.com (Nick England)
Date: Tue, 2 Apr 2013 12:50:57 -0400
Subject: [BoatAnchors] small roller inductor parts needed
Message-ID: <CAB55hNemuC0DMfrbwgytN0o_n6zGA-pyhyZSdu+z3Pof9ZX_og@mail.gmail.com>

It is a long shot but I am restoring a Navy shore station transmitter that uses several odd little roller inductors (1.25" dia) that no longer work quite right. Maybe you have something like this in your junk box and can help?

Photos and info at <http://www.navy-radio.com/xmtrs/frt17-roller.htm>

These roller inductors with sliding contacts were manufactured by Federal,

maybe to get around some patents on the more rational roller-type contact?

Any help greatly appreciated.

cheers,

Nick K4NYW

www.navy-radio.com

From navy.radio at gmail.com Tue Apr 2 16:50:22 2013

From: navy.radio at gmail.com (Nick England)

Date: Tue, 2 Apr 2013 16:50:22 -0400

Subject: [BoatAnchors] Raleigh NC hamfest photos

Message-ID: <CAB55hNcKGECzUgrJF0zSHy93Gbz9ZKf4ZJBXuxkaUyc=5RYxZA@mail.gmail.com>

For your amusement and edification....

<http://www.virhistory.com/ham/rars-13.htm>

cheers,

Nick K4NYW

From rparker at dccnet.com Wed Apr 3 00:07:58 2013

From: rparker at dccnet.com (Ralph Parker)

Date: Tue, 02 Apr 2013 21:07:58 -0700

Subject: [BoatAnchors] Raleigh NC hamfest photos

In-Reply-To: <CAB55hNcKGECzUgrJF0zSHy93Gbz9ZKf4ZJBXuxkaUyc=5RYxZA@mail.g>

<mail.com@eastlink.ca>

Message-ID: <3.0.6.32.20130402210758.00b72ba0@pop3.dccnet.com>

>For your amusement and edification....

><http://www.virhistory.com/ham/rars-13.htm>

I am indeed amused and edified.

Particularly by the device in the second row, second from the left.

Looks like some kind of ADF antenna.

I have one, and have often thought that it would make a dandy BC loop antenna, but it doesn't appear to have enough turns around the (ferrite?) bar.

Anybody have any info on this unit?

Ralph, VE7XF

From jerry7proc at yahoo.com Wed Apr 3 17:02:36 2013

From: jerry7proc at yahoo.com (Jerry Proc)

Date: Wed, 3 Apr 2013 14:02:36 -0700 (PDT)

Subject: [BoatAnchors] 6204 Tube

Message-ID: <1365022956.10777.YahooMailNeo@web121105.mail.ne1.yahoo.com>

Does anyone have specs on a Canadian Marconi 6204 tube? Someone is asking me the question. The tube seems to be defying identification.

?

http://www.ebay.com/itm/6204-Tube-RCA-MARCONI-NOS-HALF-WAVE-6X5-Rectifier-BLUE-RARE-NOT-6X5-SUB-/200835582068?pt=Vintage_Electronics_R2&hash=item2ec2bbc874

?

The Ebay seller seems to think it might be a 6X5 but its being referred to as as a half wave instead of a full wave rectifier.

Now it makes me wonder what it really is.

--

Regards,

Jerry Proc

E-mail: jerry7proc at yahoo.com

From jp at cs.unc.edu Wed Apr 3 17:02:59 2013

From: jp at cs.unc.edu (john poulton)

Date: Wed, 3 Apr 2013 17:02:59 -0400

Subject: [BoatAnchors] WTD: email for William Perry Co.

Message-ID: <DB9F406A-6767-4C8D-A6FE-8D170EAE5CC5@cs.unc.edu>

I know that Bill likes to do business over the phone.. charmingly old fashioned :)

However, I

need to send him photos of a connector, and I'm wondering if anyone on the list has an email

address for him (or, more likely, his daughter)..

73, John K4OZY

From anchor at ec.rr.com Wed Apr 3 17:29:14 2013

From: anchor at ec.rr.com (Al Parker)

Date: Wed, 03 Apr 2013 17:29:14 -0400

Subject: [BoatAnchors] 6204 Tube

In-Reply-To: <1365022956.10777.YahooMailNeo@web121105.mail.ne1.yahoo.com>

References: <1365022956.10777.YahooMailNeo@web121105.mail.ne1.yahoo.com>

Message-ID: <515C9F2A.4080108@ec.rr.com>

I can't find 6204 anywhere in Sibley's Tube Lore. It skips over it in the "5500 series", says 6202 & 6203 are ruggedized 6X4's, then jump's to 6205, a version of the 5840. RCA no.s stop at 4874.

Al, W8UT

www.boatanchors.org

www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much worth doing as simply messing about in boats"

Ratty, to Mole

On 4/3/2013 5:02 PM, Jerry Proc wrote:

> Does anyone have specs on a Canadian Marconi 6204 tube? Someone is asking me the question. The tube seems to be defying identification.

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> http://www.ebay.com/itm/6204-Tube-RCA-MARCONI-NOS-HALF-WAVE-6X5-Rectifier-BLUE-RARE-NOT-6X5-SUB-/200835582068?pt=Vintage_Electronics_R2&hash=item2ec2bbc874

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> Now it makes me wonder what it really is.

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> Regards,

> Jerry Proc

> E-mail: jerry7proc at yahoo.com

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

>

From jerry7proc at yahoo.com Wed Apr 3 19:34:24 2013

From: jerry7proc at yahoo.com (Jerry Proc)

Date: Wed, 3 Apr 2013 16:34:24 -0700 (PDT)

Subject: [BoatAnchors] 6204 Tube

In-Reply-To: <515C9F2A.4080108@ec.rr.com>

References: <1365022956.10777.YahooMailNeo@web121105.mail.ne1.yahoo.com>
<515C9F2A.4080108@ec.rr.com>

Message-ID: <1365032064.4626.YahooMailNeo@web121104.mail.ne1.yahoo.com>

Hi Al,

?

I too have found the same in the publications I have checked. . ?

--

Regards,

Jerry Proc

E-mail: jerry7proc at yahoo.com

From: Al Parker <anchor at ec.rr.com>

To: Jerry Proc <jerry7proc at yahoo.com>

Cc: "boatanchors at theporch.com" <boatanchors at theporch.com>

Sent: Wednesday, April 3, 2013 5:29:14 PM

Subject: Re: [BoatAnchors] 6204 Tube

I can't find 6204 anywhere in Sibley's Tube Lore.? It skips over it in the? "5500 series", says 6202 & 6203 are ruggedized 6X4's, then jump's to 6205, a version of the 5840.? RCA no.s stop at 4874.

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
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> Regards,

> Jerry Proc

> E-mail: [jerry7proc at yahoo.com](mailto:jerry7proc@yahoo.com)

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

>

From w7qho at aol.com Wed Apr 3 19:41:01 2013

From: w7qho at aol.com (mac)

Date: Wed, 3 Apr 2013 16:41:01 -0700

Subject: [BoatAnchors] 6204 Tube

In-Reply-To: <1365032064.4626.YahooMailNeo@web121104.mail.ne1.yahoo.com>

References: <1365022956.10777.YahooMailNeo@web121105.mail.ne1.yahoo.com>
<515C9F2A.4080108@ec.rr.com>

<1365032064.4626.YahooMailNeo@web121104.mail.ne1.yahoo.com>

Message-ID: <8D447A4A-0FB1-4739-8129-E38C7FC058E4@aol.com>

This outfit says they will sell you one for \$32. <<http://www.dbtubes.com/tube-detail.php?ID=2339>

>

Dennis D. W7QH0
Glendale, CA

On Apr 3, 2013, at 4:34 PM, Jerry Proc wrote:

> Hi Al,

>

> I too have found the same in the publications I have checked. .

>

> --

> Regards,

> Jerry Proc

> E-mail: jerry7proc at yahoo.com

>

>

> -----

> From: Al Parker <anchor at ec.rr.com>

> To: Jerry Proc <jerry7proc at yahoo.com>

> Cc: "boatanchors at theporch.com" <boatanchors at theporch.com>

> Sent: Wednesday, April 3, 2013 5:29:14 PM

> Subject: Re: [BoatAnchors] 6204 Tube

>

> I can't find 6204 anywhere in Sibley's Tube Lore. It skips over it in
> the "5500 series", says 6202 & 6203 are ruggedized 6X4's, then jump's
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>> Jerry Proc
>> E-mail: jerry7proc at yahoo.com
>> -----
>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/mailman/listinfo/boatanchors
>>
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> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
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From k1lky at earthlink.net Thu Apr 4 01:22:55 2013
From: k1lky at earthlink.net (Roy Morgan)
Date: Thu, 4 Apr 2013 01:22:55 -0400
Subject: [BoatAnchors] 6204 Tube
In-Reply-To: <1365022956.10777.YahooMailNeo@web121105.mail.ne1.yahoo.com>
References: <1365022956.10777.YahooMailNeo@web121105.mail.ne1.yahoo.com>
Message-ID: <B418DE28-60E3-4150-9027-A4DA66F93944@earthlink.net>

On Apr 3, 2013, at 5:02 PM, Jerry Proc wrote:

> Does anyone have specs on a Canadian Marconi 6204 tube?

I am not aware that Canada had many tube factories during the octal period, though they may well have.

At:
<http://www.dbtubes.com/tube-detail.php?ID=2339>
I find this:

"...
Tube type : 6204-MCN
Manufacturer (1) : Marconi
Manufacturer (2) : N/A
Country : USA / Canada

Function : Tetrode
Base : 8-pin octal

Description
NOS Marconi 6204-MCN (8-pin octal base Tetrode) made in USA. New in box (NIB) available for \$32 per tube. Worldwide shipping fees only \$3 per tube"

So maybe it's not at all a half wave rectifier.

And in an interesting side note, at:

I find:

Marconi Co. never produced Valves/Tubes: - see Marconi-Osram.
See Tyne, "Saga of the Vacuum Tube", page 372: "It cannot be emphasized too strongly that despite the markings on valves used by them, Marconi Co. never made valves.""

Roy Morgan
k1lky at earthlink.net
K1LKY Since 1958 - Keep 'em Glowing!

From k1lky at earthlink.net Thu Apr 4 01:25:08 2013
From: k1lky at earthlink.net (Roy Morgan)
Date: Thu, 4 Apr 2013 01:25:08 -0400
Subject: [BoatAnchors] WTD: email for William Perry Co.
In-Reply-To: <DB9F406A-6767-4C8D-A6FE-8D170EAE5CC5@cs.unc.edu>
References: <DB9F406A-6767-4C8D-A6FE-8D170EAE5CC5@cs.unc.edu>
Message-ID: <D7E61331-2363-45BC-A1B8-BA222CD7D074@earthlink.net>

On Apr 3, 2013, at 5:02 PM, john poulton wrote:

> I know that Bill likes to do business over the phone.. charmingly
> old fashioned :) However, I
> need to send him photos of a connector, and I'm wondering if anyone
> on the list has an email
> address for him (or, more likely, his daughter)..

John,

This is the info I have in a notes file:

wmperry at covad.net
702 (Rear) Beechwood Rd
Louisville, KY, 40207
(502) 893-8724, FAX (502) 893-9220

>William Perry Company
>92 Beechwood Rd. (Rear)
>Louisville, KY 40207
>502-893-8724

No web site that I know of.

Email reported 7/03: wmperry at covad.net

Roy Morgan
k1lky at earthlink.net
K1LKY Since 1958 - Keep 'em Glowing!

From wb3fau55 at neo.rr.com Thu Apr 4 04:53:47 2013
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Thu, 4 Apr 2013 4:53:47 -0400
Subject: [BoatAnchors] WTD: email for William Perry Co.
In-Reply-To: <D7E61331-2363-45BC-A1B8-BA222CD7D074@earthlink.net>
Message-ID: <20130404085347.PU02H.579.root@cdptpa-web38.mail.rr.com>

No website? How about a catalog available? Russ.

----- Roy Morgan wrote:

>

> On Apr 3, 2013, at 5:02 PM, john poulton wrote:

>

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> > old fashioned :) However, I
> > need to send him photos of a connector, and I'm wondering if anyone
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> 702 (Rear) Beechwood Rd
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> >William Perry Company
> >92 Beechwood Rd. (Rear)
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> >502-893-8724

> No web site that I know of.

> Email reported 7/03: wmperry at covad.net

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> Roy Morgan
> k1lky at earthlink.net
> K1LKY Since 1958 - Keep 'em Glowing!
>
>
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Thu Apr 4 11:27:12 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 4 Apr 2013 08:27:12 -0700
Subject: [BoatAnchors] Ultimate capacitor stuffer
Message-ID: <000b01ce3148\$e7011fe0\$4301a8c0@KB6NAX>

Cap rebuilders,

It's been a long time coming but the demands of modern power conversion electronics packaging has finally delivered just what boatanchor restorers can make good use of. Nippon Chemicon has a 22uF 450V capacitor that's only 10 mm (.394 in.) in diameter by 35 mm (1.38 in.) long. That means seven (7) capacitors of this form factor can fit side by side inside a 1.315 in. dia. can. That totals 154 uF with 1.75 amps 120 Hz ripple current capability. One can make a 40, 40, 40, 20uF, 450V multisection cap come back to life with new guts. It's in stock at Mouser, cat. no. 661-EKXJ451ELL220MJ3 at \$1.11 ea. Have fun!!!

Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

From N3BJ at cox.net Thu Apr 4 11:22:08 2013
From: N3BJ at cox.net (Alan Fryer)
Date: Thu, 4 Apr 2013 11:22:08 -0400
Subject: [BoatAnchors] Raleigh NC hamfest photos
In-Reply-To: <CAB55hNcKGECzUgrJF0zSHy93Gbz9ZKf4ZJBXuxkaUyc=5RYxZA@mail.gmail.com>
References: <CAB55hNcKGECzUgrJF0zSHy93Gbz9ZKf4ZJBXuxkaUyc=5RYxZA@mail.gmail.com>
Message-ID: <7A0E869F38CB4DCA97E9400AE49D6EA0@AlanHP>

Thanks as usual for the great pix, Nick ! Always see stuff I missed...

Alan, N3BJ

-----Original Message-----

From: Nick England

Sent: Tuesday, April 02, 2013 4:50 PM

To: Old Tube Radios

Subject: [BoatAnchors] Raleigh NC hamfest photos

For your amusement and edification....

<http://www.virhistory.com/ham/rars-13.htm>

cheers,

Nick K4NYW

BoatAnchors mailing list

BoatAnchors at theporch.com

<https://minime.theporch.com/mailman/listinfo/boatanchors>

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2013.0.2904 / Virus Database: 2641/6221 - Release Date: 04/02/13

From N3BJ at cox.net Thu Apr 4 11:23:14 2013

From: N3BJ at cox.net (Alan Fryer)

Date: Thu, 4 Apr 2013 11:23:14 -0400

Subject: [BoatAnchors] BAs at Timonium - R-390A and SP-600

Message-ID: <3B9318FA3EB24691B7D154FBE20159DE@AlanHP>

I'll have two receivers at Timonium this Saturday that have been refurbished by Al Parker, W8UT aka ?The Hammarlund Guy?.

One is an EAC R-390A and the other is a SP-600 JX14. Both are in good shape and ready to go. Details available on each.

Will also have other BA items. Hope to see you there !

Alan, N3BJ

From navy.radio at gmail.com Thu Apr 4 12:10:57 2013

From: navy.radio at gmail.com (Nick England)

Date: Thu, 4 Apr 2013 12:10:57 -0400

Subject: [BoatAnchors] vintage RF choke info

Message-ID: <CAB55hNe1vfCMJU_jP05ZresK9gmsRGs-SLPMrWX90Bg6uJjXMg@mail.gmail.com>

I gathered a little info in the course of trying to identify an RF choke in a transmitter I am restoring. You might find this useful too.

<http://www.virhistory.com/ham/rf-choke.htm>

One chart gives resistances of Millen and National RF chokes which is helpful in identifying which particular model you have in your junkbox or find at a hamfest.

cheers,

Nick K4NYW

www.navy-radio.com

From anchor at ec.rr.com Thu Apr 4 13:14:19 2013

From: anchor at ec.rr.com (Al Parker)

Date: Thu, 04 Apr 2013 13:14:19 -0400

Subject: [BoatAnchors] vintage RF choke info

In-Reply-To: <CAB55hNe1vfCMJU_jP05ZresK9gmsRGs-SLPMrWX90Bg6uJjXMg@mail.gmail.com>

References: <CAB55hNe1vfCMJU_jP05ZresK9gmsRGs-SLPMrWX90Bg6uJjXMg@mail.gmail.com>

Message-ID: <515DB4EB.8050006@ec.rr.com>

Thanks Nick,

All now saved in my archives for future reference.

73,

Al, W8UT

www.boatanchors.org

www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much worth doing as simply messing about in boats"

Ratty, to Mole

On 4/4/2013 12:10 PM, Nick England wrote:

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> a transmitter I am restoring. You might find this useful too.

> <http://www.virhistory.com/ham/rf-choke.htm>

> One chart gives resistances of Millen and National RF chokes which is

> helpful in identifying which particular model you have in your junkbox or

> find at a hamfest.

> cheers,

> Nick K4NYW

> www.navy-radio.com

> -----

From zengmeiste at aol.com Wed Apr 3 20:48:08 2013

From: zengmeiste at aol.com (Jammer)

Date: Wed, 3 Apr 2013 20:48:08 -0400 (EDT)
Subject: [BoatAnchors] Raleigh NC Hamfest photos
In-Reply-To: <mailman.1.1365008400.1261.boatanchors@theporch.com>
References: <mailman.1.1365008400.1261.boatanchors@theporch.com>
Message-ID: <8CFFEE535C16332-1A60-77D5@webmail-m174.sysops.aol.com>

Nick.. kewl! Thanks bunches; vicarious hamfesting keeps my wallet in my pocket, where it's safe.

Not that there's anything IN my wallet to speak of.

Wow, lookit them parts 'n things. Some of the AA5's look like radios I usedta have once.

I know what to do with (part of) the millions I might win in the Powerball lottery. A two-story, one-square acre museum cum repair and restoration facility. Sigh.

Thanks again, Nick. And W.G.

73 de Terry KC9KEL

From arc5 at ix.netcom.com Sun Apr 7 08:33:44 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Sun, 7 Apr 2013 07:33:44 -0500
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
Message-ID: <48CA8E153DBD42F9B19D55F930E236C9@CompaqSR5710F>

I've recently been told that "rust converting" paint- paint that claims to chemically "fix" and stop rust, converting, sealing and bonding it within the paint lattice, actually makes rust worse over time.

Anyone have any hard information on this?

From gsantacana at gmail.com Sun Apr 7 09:55:48 2013
From: gsantacana at gmail.com (Guido Santacana)
Date: Sun, 7 Apr 2013 09:55:48 -0400
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
In-Reply-To: <48CA8E153DBD42F9B19D55F930E236C9@CompaqSR5710F>
References: <48CA8E153DBD42F9B19D55F930E236C9@CompaqSR5710F>
Message-ID: <CA01yix30-00L9FPRMYGG5Vn0xa=EY+SNx=A-0DwrjB5G+7e7mA@mail.gmail.com>

I have used a product called Rust Extend with success in a couple of chassis with localized heavy rust. It has stopped the rust successfully and I live in a tropical humid environment where rust protection is a must in all my BA rigs.

73s

Guido KP4FAR

On Sunday, April 7, 2013, David Stinson <arc5 at ix.netcom.com> wrote:
> I've recently been told that "rust converting" paint- paint that claims to chemically "fix" and stop rust, converting, sealing
> and bonding it within the paint lattice, actually makes rust worse
> over time.
>
> Anyone have any hard information on this?
>
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

From wb3fau55 at neo.rr.com Sun Apr 7 10:43:35 2013
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Sun, 7 Apr 2013 10:43:35 -0400
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
In-Reply-To: <CA01yix30-00L9FPRMYGG5Vn0xa=EY+SNx=A-0DwrjB5G+7e7mA@mail.gmail.com>
Message-ID: <20130407144335.E8D53.149879.root@cdptpa-web08-z02>

this stuff may have had its origins with Duro, they make Navel Jelly and something the auto body people use called Extend. The stuff seems to have ability to neutralize rust. Both of these items work great. Russ.

---- Guido Santacana <gsantacana at gmail.com> wrote:
> I have used a product called Rust Extend with success in a couple of
> chassis with localized heavy rust. It has stopped the rust successfully and
> I live in a tropical humid environment where rust protection is a must in
> all my BA rigs.
>
> 73s
>
> Guido KP4FAR
>
> On Sunday, April 7, 2013, David Stinson <arc5 at ix.netcom.com> wrote:

> > I've recently been told that "rust converting" paint- paint that claims
> to chemically "fix" and stop rust, converting, sealing
> > and bonding it within the paint lattice, actually makes rust worse
> > over time.

> >

> > Anyone have any hard information on this?

> >

> >

> >

> > -----
> > BoatAnchors mailing list

> > BoatAnchors at theporch.com

> > <https://minime.theporch.com/mailman/listinfo/boatanchors>

> >

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From universal_comm at reagan.com Sun Apr 7 10:58:59 2013

From: universal_comm at reagan.com (universal_comm at reagan.com)

Date: Sun, 7 Apr 2013 10:58:59 -0400 (EDT)

Subject: [BoatAnchors]

=?utf-8?q?=22Rust_Converting=22_Paint-_Good=3F_Bad?= =?utf-8?q?=3F?=-

In-Reply-To: <20130407144335.E8D53.149879.root@cdptpa-web08-z02>

References: <20130407144335.E8D53.149879.root@cdptpa-web08-z02>

Message-ID: <1365346739.437232689@webmail.reagan.com>

Well, it is not really paint. It is commonly called Ospho and comes in many brands. The primary active ingredient in Ospho is phosphoric acid, it works by "converting" iron oxide (rust) to iron phosphates that are much more chemically stable and therefore resist corrosion for a much longer time - thereby extending the effective lifespan of the primer and topcoat [http://www.bizrate.com/search__af_assettype_id--4__af_creative_id--3__af_id--foo__af_placement_id--bar__keyword--topcoat__rf--af1.html]. After the Ospho reacts with the steel surface it is completely neutralized [<http://rover.ebay.com/rover/1/711-53200-19255-0/1?>

[toolid=10029&campid=CAMPAIGNID&customid=CUSTOMID&catId=220&type=2&ext=400444291841&item=400444291841](http://rover.ebay.com/rover/1/711-53200-19255-0/1?toolid=10029&campid=CAMPAIGNID&customid=CUSTOMID&catId=220&type=2&ext=400444291841&item=400444291841)] and does not leave behind any film or deposits that might interfere with subsequent primer/topcoats.

I spent 30 years in the marine environment and we have rust everywhere and this is what we used aboard ship with great results on iron and steel.

YMMV

Ray

This stuff may have had its origins with Duro, they make Navel Jelly and something

the auto body people use called Extend. The stuff seems to have ability to neutralize

rust. Both of these items work great. Russ.

---- Guido Santacana <gsantacana@gmail.com> wrote:

> I have used a product called Rust Extend with success in a couple of
> chassis with localized heavy rust. It has stopped the rust successfully and
> I live in a tropical humid environment where rust protection is a must in
> all my BA rigs.

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> 73s

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> Guido KP4FAR

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> On Sunday, April 7, 2013, David Stinson <arc5@ix.netcom.com> wrote:

> > I've recently been told that "rust converting" paint- paint that claims
> to chemically "fix" and stop rust, converting, sealing
> > and bonding it within the paint lattice, actually makes rust worse
> > over time.

From jim.isbell@gmail.com Sun Apr 7 13:26:04 2013

From: jim.isbell@gmail.com (Jim Isbell, W5JAI)

Date: Sun, 7 Apr 2013 12:26:04 -0500

Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?

In-Reply-To: <20130407144335.E8D53.149879.root@cdptpa-web08-z02>

References: <CA01yix30-00L9FPRMYGG5Vn0xa=EY+SNx=A-0DwrjB5G+7e7mA@mail.gmail.com>
<20130407144335.E8D53.149879.root@cdptpa-web08-z02>

Message-ID: <CAB+LbZDWN4e3E-q_dce5eil200-K080hVkkcNPwLmdbJ32rpvg@mail.gmail.com>

I use Coroseal which is a rust neutralizer mixed with some sort of latex paint. It turns the rust into Hematite (the mineral form of iron(III) oxide (Fe₂O₃)), a black oxide of iron that is like stone and in fact is used in jewelry and called Alaskan Black Diamond.

Jim Isbell

TheFreeRepublicAt.WordPress.com

www.youtube.com/watch?v=BFtoaMM1ChY&feature=related

www.youtube.com/watch?v=dyjJ3Fw0nSQ

www.facebook.com/profile.php?id=100000010609777

Beware the man who only carries one gun. HE PROBABLY KNOWS HOW TO USE IT!!!

On Sun, Apr 7, 2013 at 9:43 AM, <wb3fau55 at neo.rr.com> wrote:

- > this stuff may have had its origins with Duro, they make Navel Jelly and something
- > the auto body people use called Extend. The stuff seems to have ability to neutralize
- > rust. Both of these items work great. Russ.
- > ---- Guido Santacana <gsantacana at gmail.com> wrote:
- >> I have used a product called Rust Extend with success in a couple of
- >> chassis with localized heavy rust. It has stopped the rust successfully and
- >> I live in a tropical humid environment where rust protection is a must in
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- >> On Sunday, April 7, 2013, David Stinson <arc5 at ix.netcom.com> wrote:
- >> > I've recently been told that "rust converting" paint- paint that claims
- >> to chemically "fix" and stop rust, converting, sealing
- >> > and bonding it within the paint lattice, actually makes rust worse
- >> > over time.
- >> >
- >> > Anyone have any hard information on this?
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- >> > BoatAnchors mailing list
- >> > BoatAnchors at theporch.com
- >> > <https://minime.theporch.com/mailman/listinfo/boatanchors>
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- >> > BoatAnchors mailing list
- >> > BoatAnchors at theporch.com
- >> > <https://minime.theporch.com/mailman/listinfo/boatanchors>

From mike at oldaudio.net Sun Apr 7 15:14:42 2013
 From: mike at oldaudio.net (Mike Durff)
 Date: Sun, 7 Apr 2013 12:14:42 -0700 (PDT)
 Subject: [BoatAnchors] Rust converter
 Message-ID: <1365362082.60238.YahooMailNeo@web5705.biz.mail.ne1.yahoo.com>

I have used this product with great success:

Available in Quart, spray, & gallon. Auto Zone has a similar product in a much smaller size.

<http://www.gemplers.com/product/RCQ/GEMPLERS-Rust-Converter-One-Quart>

From gumbear at pacbell.net Sun Apr 7 18:38:54 2013

From: gumbear at pacbell.net (Arden Allen)

Date: Sun, 7 Apr 2013 15:38:54 -0700

Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?

References: <48CA8E153DBD42F9B19D55F930E236C9@CompaqSR5710F>

Message-ID: <002b01ce33e0\$b2847880\$4301a8c0@KB6NAX>

> I've recently been told that "rust converting" paint-
paint that claims to chemically "fix" and stop rust, converting, sealing
and bonding it within the paint lattice, actually makes rust worse
over time.

As anyone who has spent time in a marine environment will tell you paint
over rust does not work. Iron oxide absorbs moisture through the
permeability of paint and as iron continues to be converted into oxide the
rust expands and bursts through the paint. "Fixing" the rust by chemically
converting it into a compound that is less attractive to moisture and more
resistant to oxidation and corrosion in the presence of moisture buys time
for the bos'uns of the world to get some more hammock time ;-). But as
anyone who lives by a busy sea port observes most of the visiting
merchantmen are covered with rust. That's because by the time the engine
plant needs replacing the hull is about shot anyway - off to the child
operated scrappers they go...

Arden Allen

KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

From a.b.bonds at Vanderbilt.Edu Sun Apr 7 19:10:00 2013

From: a.b.bonds at Vanderbilt.Edu (Bonds, A B)

Date: Sun, 7 Apr 2013 23:10:00 +0000

Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?

In-Reply-To: <002b01ce33e0\$b2847880\$4301a8c0@KB6NAX>

References: <48CA8E153DBD42F9B19D55F930E236C9@CompaqSR5710F>

<002b01ce33e0\$b2847880\$4301a8c0@KB6NAX>

Message-ID: <C8FFB7BC5D48064D8BF9AD0086503DF9086FCE@ITS-HCWNE103.ds.vanderbilt.edu>

There are a number of "paint it and forget it" products out there like POR-15 that encourage you to clean the rust superficially and gob the stuff on. First-hand experience: It's a Bad Idea. The paint seals the rust under an impermeable layer, where it is free to munch away as it pleases. A couple of year later the stuff comes off in sheets and you are worse off than when you started.

Problem with the surface converters is that you don't know how deep the rust goes.

That being said, Ospho is great stuff. And then paint it.

A. B. Bonds

-----Original Message-----

From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of Arden Allen

Sent: Sunday, April 07, 2013 5:39 PM

To: David Stinson; boatanchors at theporch.com

Subject: Re: [BoatAnchors] "Rust Converting" Paint- Good? Bad?

> I've recently been told that "rust converting" paint-paint that claims to chemically "fix" and stop rust, converting, sealing and bonding it within the paint lattice, actually makes rust worse over time.

As anyone who has spent time in a marine environment will tell you paint over rust does not work. Iron oxide absorbs moisture through the permeability of paint and as iron continues to be converted into oxide the rust expands and bursts through the paint. "Fixing" the rust by chemically converting it into a compound that is less attractive to moisture and more resistant to oxidation and corrosion in the presence of moisture buys time for the bos'uns of the world to get some more hammock time ;-). But as anyone who lives by a busy sea port observes most of the visiting merchantmen are covered with rust. That's because by the time the engine plant needs replacing the hull is about shot anyway - off to the child operated scrappers they go...

Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Mon Apr 8 15:09:56 2013

From: gumbear at pacbell.net (Arden Allen)

Date: Mon, 8 Apr 2013 12:09:56 -0700

Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?

References:

<48CA8E153DBD42F9B19D55F930E236C9@CompaqSR5710F><002b01ce33e0\$b2847880\$4301a8c0@KB6NAX>

<C8FFB7BC5D48064D8BF9AD0086503DF9086FCE@ITS-HCWNE103.ds.vanderbilt.edu>

Message-ID: <002601ce348f\$233fbb30\$4301a8c0@KB6NAX>

AB, if paint were truly impermeable then it would prevent further rust. If a chemical process is deprived of new contributors it would eventually complete and then rest. But paints are worse than plastic at holding moisture out. Better paints have lower permeability rates. It's a matter of time as to how well paints protect.

> There are a number of "paint it and forget it" products out there like POR-15 that encourage you to clean the rust superficially and gob the stuff on. First-hand experience: It's a Bad Idea. The paint seals the rust under an impermeable layer, where it is free to munch away as it pleases. A couple of year later the stuff comes off in sheets and you are worse off than when you started.

Problem with the surface converters is that you don't know how deep the rust goes.

That being said, Ospho is great stuff. And then paint it.

A. B. Bonds

From wb3fau55 at neo.rr.com Mon Apr 8 18:05:59 2013

From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)

Date: Mon, 8 Apr 2013 18:05:59 -0400

Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?

In-Reply-To: <002601ce348f\$233fbb30\$4301a8c0@KB6NAX>

Message-ID: <20130408220559.970P8.166511.root@cdptpa-web08-z02>

So how about this- if the metal was made properly as in removing impurities when it is made, use of coke, and then stored properly, out of the weather, properly rustproofed before rust develops, would this help?

---- Arden Allen <gumbear at pacbell.net> wrote:
> AB, if paint were truly impermeable then it would prevent further rust. If
> a chemical process is deprived of new contributors it would eventually
> complete and then rest. But paints are worse than plastic at holding
> moisture out. Better paints have lower permeability rates. It's a matter
> of time as to how well paints protect.
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> > There are a number of "paint it and forget it" products out there like
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> Problem with the surface converters is that you don't know how deep the rust
> goes.
>
> That being said, Ospho is great stuff. And then paint it.
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> A. B. Bonds
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Mon Apr 8 21:06:29 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Mon, 8 Apr 2013 18:06:29 -0700
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
References: <20130408220559.970P8.166511.root@cdptpa-web08-z02>
Message-ID: <002201ce34be\$7a455dc0\$4301a8c0@KB6NAX>

> So how about this- if the metal was made properly as in removing
impurities when it is made, use of coke, and then stored properly, out of
the weather, properly rustproofed before rust develops, would this help?

Russ, the real world we live in is governed by economics more than
philosophy, or at least it appears so in my experience. Things are made to
go for a price and provide a service for a reasonable expectation of life
and reliability. So to answer your question, there is no answer.

Arden

Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

From arc5 at ix.netcom.com Mon Apr 8 21:24:57 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Mon, 8 Apr 2013 20:24:57 -0500
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
In-Reply-To: <002201ce34be\$7a455dc0\$4301a8c0@KB6NAX>
References: <20130408220559.970P8.166511.root@cdptpa-web08-z02>
<002201ce34be\$7a455dc0\$4301a8c0@KB6NAX>
Message-ID: <D98E13CDE39D44248185DBBC4BB01069@CompaqSR5710F>

----- Original Message -----

From: "Arden Allen" <gumbear at pacbell.net>

> Russ, the real world we live in is governed by economics more than
> philosophy, or at least it appears so in my experience....

As I tell my kids,

"A sad truth: Money makes the world go'round
and B.S. lubricates the gears....."

From brianclarke01 at optusnet.com.au Mon Apr 8 22:54:10 2013
From: brianclarke01 at optusnet.com.au (brianclarke01 at optusnet.com.au)
Date: Tue, 09 Apr 2013 12:54:10 +1000
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
In-Reply-To: <20130408220559.970P8.166511.root@cdptpa-web08-z02>
Message-ID: <17954cf8b42ca3255a1bff970c56924703bc22de@webmail.optuszoo.com.au>

No.Iron oxide forms wherever there is iron, water and oxygen in
contact, even through micropores.?See any text on corrosion.73 de
Brian, VK2GCE.

On?Mon, 8 Apr 2013 18:05:59 -0400, you said:

So how about this- if the metal was made properly as in removing
impurities when it is made, use

of coke, and then stored properly, out of the weather, properly
rustproofed before rust developes,
would this help??

> A. B. Bonds

Email sent using Optus Webmail

From wb3fau55 at neo.rr.com Tue Apr 9 04:49:53 2013
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Tue, 9 Apr 2013 4:49:53 -0400
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
In-Reply-To: <002201ce34be\$7a455dc0\$4301a8c0@KB6NAX>
Message-ID: <20130409084953.3QS2U.168585.root@cdptpa-web08-z02>

Very good Arden, supposedly, I live in the "rust belt", here in Erie. My 1st car was a '68 Ford, which was a real "rust bucket". Same problems thru the '70s. Then in '84, I purchased a new Plymouth mini van. This lasted me 14 years, and only starting to rust at that time. So, I come to the conclusion that the "big 3" finally started "processing the steel" in a better method. Russ.

----- Arden Allen <gumbear at pacbell.net> wrote:

> > So how about this- if the metal was made properly as in removing
> impurities when it is made, use of coke, and then stored properly, out of
> the weather, properly rustproofed before rust developes, would this help?
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> Russ, the real world we live in is governed by economics more than
> philosophy, or at least it appears so in my experience. Things are made to
> go for a price and provide a service for a reasonable expectation of life
> and reliability. So to answer your question, there is no answer.
>
> Arden
>
> Arden Allen
> KB6NAX
>
> Adopt a shelter dog,
> save an innocent life,
> and make a friend forever =:-)
>

From nf6x at nf6x.net Tue Apr 9 10:54:29 2013
From: nf6x at nf6x.net (Mark J. Blair)
Date: Tue, 9 Apr 2013 07:54:29 -0700
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
In-Reply-To: <20130409084953.3QS2U.168585.root@cdptpa-web08-z02>

References: <20130409084953.3QS2U.168585.root@cdptpa-web08-z02>
Message-ID: <3F7804DC-E22A-4733-BF2D-8108D87065C7@nf6x.net>

On Apr 9, 2013, at 01:49 , wb3fau55 at neo.rr.com wrote:
> So, I come to the conclusion that the "big 3" finally started
> "processing the steel" in a better method. Russ.

I think they started galvanizing the steel.

--
Mark J. Blair, NF6X <nf6x at nf6x.net>
<http://www.nf6x.net/>

From jdausilio at gmail.com Tue Apr 9 12:06:19 2013
From: jdausilio at gmail.com (John D'Ausilio)
Date: Tue, 9 Apr 2013 12:06:19 -0400
Subject: [BoatAnchors] "Rust Converting" Paint- Good? Bad?
In-Reply-To: <20130409084953.3QS2U.168585.root@cdptpa-web08-z02>
References: <002201ce34be\$7a455dc0\$4301a8c0@KB6NAX>
<20130409084953.3QS2U.168585.root@cdptpa-web08-z02>
Message-ID: <CA01ctWeT6ko1DdGuHyEJATrCokSBJdGL_x12zyQwy+a9vPzW2A@mail.gmail.com>

I think the manufacturers also started using undercoats around then ..
There were a number of business in New England who would take your new car,
drill holes to access the backs of body panels and insides of closed
structures, then blasted rubbery coatings all over everything.

On Tue, Apr 9, 2013 at 4:49 AM, <wb3fau55 at neo.rr.com> wrote:

> Very good Arden, supposedly, I live in the "rust belt", here in Erie. My
> 1st car was a '68
> Ford, which was a real "rust bucket". Same problems thru the '70s.
> Then in '84, I purchased
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> the steel" in a better
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> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

From ddillman at igc.org Thu Apr 11 16:49:03 2013
From: ddillman at igc.org (Richard Dillman)
Date: Thu, 11 Apr 2013 13:49:03 -0700 (GMT-07:00)
Subject: [BoatAnchors] K6KPH On The Air for International Marconi Day
Message-ID: <8489472.1365713343641.JavaMail.root@elwamui-
polski.atl.sa.earthlink.net>

K6KPH, the amateur station of the Maritime Radio Historical Society (MRHS), will be on the air for International Marconi Day 2013, the annual event sponsored by the Cornish Amateur Radio Club (<http://www.gb4imd.com/>).

Date: 20 April 2013Z
Time: 0000Z to 2359Z for the global event. See below for K6KPH operating times.

K6KPH has been on the air for previous International Marconi Days but this year will be special. For 2013 *both* the transmit and receive sites will be at historic Marconi locations.

We will be using the former KPH transmitters at the Marconi transmit site in Bolinas, California as usual. But this year the receive site will be at the original Marconi receiving station in Marshall, California. Both sites were built in 1913 and went into service in 1914.

The Marconi site in Marshall is now the Marconi Conference Center (MCC) (<http://>

www.marconiconference.org/index.html).

With the kind permission of MCC manager Kathy Wippert, we will install vintage receivers and control equipment in one of the two Marconi cottages on site that has been beautifully restored. The transmitters in Bolinas will be keyed by remote control.

K6KPH will guard its usual frequencies of 3550.0, 7050.0, 14050.0, 18097.5 and 21050.0kc. TPO will be 1.5kW on all frequencies. The frequencies chosen will depend on conditions and the time of day. We may run a "wheel" (a repeating announcement of the frequencies being monitored) on active frequencies, as is standard commercial practice. Those wanting to contact K6KPH may elect to use the commercial procedure of sending "K6KPH" repeatedly until the operator responds with a "DE" at which point the calling station sends its call sign. But of course K6KPH operators will respond to calls in any format.

MRHS coast station KSM will also be in operation with selected Morse channels keyed from the Marconi receive site.

We will be open for visitors for this event! Please join us at the Marconi cottage (called McCargo Hall by the MCC) on Saturday 20 April between 10am and 4pm.

The Marconi Conference Center is located at 18500 State Highway One, Marshall, CA 94940. GPS and mapping programs like Google Maps will guide you there from your location. The site and the surrounding area is very beautiful. Why not make a day of it and have some radio fun too?

Visiting operators will be invited to "sit the circuit" at K6KPH, no license required. Those holding a commercial radiotelegraph ticket may operate KSM and have their licenses endorsed for operation at a commercial coast station.

For more information about MRHS participation in IMD 2013 please see our Newsletter No. 32 at:

<http://tinyurl.com/bp8mh2q>

or reply to this message.

For a list of back issues of the Newsletter along with the option to subscribe, please see:

<http://tinyurl.com/9kv9u3j>

We hope to see you there or hear you on the air.

VY 73,

RD

=====
Richard Dillman, WPE2VT
Chief Operator, Coast Station KSM
Maritime Radio Historical Society
<http://www.radiomarine.org>
=====

From navy.radio at gmail.com Fri Apr 12 15:24:47 2013
From: navy.radio at gmail.com (Nick England)
Date: Fri, 12 Apr 2013 15:24:47 -0400
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
Message-ID: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>

Howdy men - OK, I know it is good practice to use a phenolic washer with a ceramic standoff.
You can still get new Keystone ceramic standoffs, but where can you find suitable washers?
These things used to be as common as mud, but now?
I need some 0.75" diameter, .030" thick, with hole for #10 screw.
McMaster-Carr, etc. all have a small selection of unsuitable washers - like 0.64" dia and .06" thick.
Any suggestions???

thanks,
Nick K4NYW

From k4oah at mindspring.com Fri Apr 12 15:33:45 2013
From: k4oah at mindspring.com (Garey Barrell)
Date: Fri, 12 Apr 2013 15:33:45 -0400
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
Message-ID: <51686199.4070404@mindspring.com>

Nick -

I would have thought Keystone as well.. Ceramic standoffs 'usta' have cork washers. X-Acto style razor saw and wine bottle cork??

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

and TR-4/C Service Supplement CDs
<www.k4oah.com>

Nick England wrote:

> Howdy men - OK, I know it is good practice to use a phenolic washer
> with a ceramic standoff.
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> I need some 0.75" diameter, .030" thick, with hole for #10 screw.
> McMaster-Carr, etc. all have a small selection of unsuitable washers -
> like 0.64" dia and .06" thick.
> Any suggestions???

>

> thanks,
> Nick K4NYW

>

From mike_25-z at aafradio.org Fri Apr 12 16:08:15 2013
From: mike_25-z at aafradio.org (aafradio)
Date: Fri, 12 Apr 2013 16:08:15 -0400
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
Message-ID: <516869AF.4020804@aafradio.org>

On 4/12/2013 3:24 PM, Nick England wrote:

> Howdy men - OK, I know it is good practice to use a phenolic washer
> with a ceramic standoff.
> You can still get new Keystone ceramic standoffs, but where can you
> find suitable washers?
> These things used to be as common as mud, but now?
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> McMaster-Carr, etc. all have a small selection of unsuitable washers -
> like 0.64" dia and .06" thick.
> Any suggestions???

Yup. 3/4" diameter nylon rod and a lathe. Someone you know allegedly
has one, but I'm not sure he has it working yet. :-) How many do you need?

Very 73,
- Mike

From oldradio at comcast.net Fri Apr 12 16:45:13 2013
From: oldradio at comcast.net (oldradio at comcast.net)

Date: Fri, 12 Apr 2013 20:45:13 +0000 (UTC)
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <51686199.4070404@mindspring.com>
Message-ID:
<2026413899.311981.1365799513409.JavaMail.root@sz0213a.westchester.pa.mail.comcast.net>

If you're going to make them then try

Fiberglass PC board, a drill and a Jig saw, or something to cut them out.

73, John Dilks, K2TQN

-. -

----- Original Message -----

From: "Garey Barrell" <k4oah at mindspring.com>
To: "boatanchors at theporch.com >> Boatanchors" <boatanchors at theporch.com>
Sent: Friday, April 12, 2013 3:33:45 PM
Subject: Re: [BoatAnchors] Phenolic washers to use with ceramic standoffs

Nick -

I would have thought Keystone as well.. Ceramic standoffs 'usta' have cork washers. X-Acto style razor saw and wine bottle cork??

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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Nick England wrote:

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> like 0.64" dia and .06" thick.
> Any suggestions???

>
> thanks,
> Nick K4NYW
>

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From kd5byb at kd5byb.net Fri Apr 12 16:48:45 2013
From: kd5byb at kd5byb.net (Ben Hall)
Date: Fri, 12 Apr 2013 15:48:45 -0500
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
Message-ID: <5168732D.2060805@kd5byb.net>

I'd look at McMaster-Carr.

<<http://www.mcmaster.com/>>

I know they've got a wide selection of plastic (nylon) washers. I have also bought fiber washers from them (for carb rebuilding) but the selection was rather limited if I remember correctly.

thanks and 73,
ben

On 4/12/2013 2:24 PM, Nick England wrote:
> Howdy men - OK, I know it is good practice to use a phenolic washer
> with a ceramic standoff.
> You can still get new Keystone ceramic standoffs, but where can you
> find suitable washers?

From jp at cs.unc.edu Fri Apr 12 17:13:21 2013
From: jp at cs.unc.edu (john poulton)
Date: Fri, 12 Apr 2013 17:13:21 -0400
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <516869AF.4020804@aafradio.org>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
<516869AF.4020804@aafradio.org>
Message-ID: <74D0F3EE-3929-4877-A5BF-21332743BE3D@cs.unc.edu>

Oh, now.. that's not nice!

My lathe is working fine, and I think I have some 3/4" rod around somewhere, but also the
aforementioned fiber washers.. so there!

73 back atcha, Mike,
John K4OZY

On Apr 12, 2013, at 4:08 PM, aafradio wrote:

```
> On 4/12/2013 3:24 PM, Nick England wrote:
>> Howdy men - OK, I know it is good practice to use a phenolic washer
>> with a ceramic standoff.
>> You can still get new Keystone ceramic standoffs, but where can you
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> Yup. 3/4" diameter nylon rod and a lathe. Someone you know allegedly has one,
> but I'm not sure he has it working yet. :-) How many do you need?
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> Very 73,
> - Mike
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
```

From wb3fau55 at neo.rr.com Fri Apr 12 18:04:05 2013
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Fri, 12 Apr 2013 18:04:05 -0400
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
Message-ID: <20130412220405.LP30R.2120.root@cdptpa-web09-z01>

OK guys, if you cannot find phenolic washers, try some modern alternatives, like nylon, teflon, or other insulators. Russ.

----- Nick England <navy.radio at gmail.com> wrote:

```
> Howdy men - OK, I know it is good practice to use a phenolic washer
> with a ceramic standoff.
> You can still get new Keystone ceramic standoffs, but where can you
> find suitable washers?
> These things used to be as common as mud, but now?
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```

> Any suggestions???

>

> thanks,

> Nick K4NYW

> -----

> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From ranickel at comcast.net Fri Apr 12 20:26:52 2013
From: ranickel at comcast.net (Robert Nickels)
Date: Fri, 12 Apr 2013 19:26:52 -0500
Subject: [BoatAnchors] PA question
Message-ID: <5168A64C.1030207@comcast.net>

I've been fooling with an old channelized commercial radio that has three 6146s in parallel in the PA. It's working more or less, but I've noticed that the longer I put RF through it, the greater the output. Using a Bird and 50 ohm dummy load, I've seen the power increase by a factor of 2 and you can actually see the needle rise as you keep the rig keyed.

I haven't seen this before, but there's no doubt these tubes have been out of service for 20 years or more. Is this some kind of rejuvenation effect, or what?

73, Bob W9RAN

From gumbear at pacbell.net Fri Apr 12 22:19:08 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 12 Apr 2013 19:19:08 -0700
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
Message-ID: <001d01ce37ed\$4db90130\$4301a8c0@KB6NAX>

> I need some 0.75" diameter, .030" thick, with hole for #10 screw.

A 0.75 in. dia. washer is easy to make from the carboard separators that come with the dog biscuits my dogs consume by the ton. I've got a stack of those carboard sheets about eight inches high and try as I do to reduce the stack through use the pile keeps getting higher. Sharp sizzors and one of the spacers as a circle template is all you need.

Arden Allen

KB6NAX

I love a dog. He does nothing for political reasons.
-Will Rogers

From wb3fau55 at neo.rr.com Fri Apr 12 22:29:36 2013
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Fri, 12 Apr 2013 22:29:36 -0400
Subject: [BoatAnchors] PA question
In-Reply-To: <5168A64C.1030207@comcast.net>
Message-ID: <20130413022936.SX9K2.2994.root@cdptpa-web09-z01>

OK, assuming the grid drive is not changing, a best guess would be to see if the screen voltage is changing...Russ.

----- Robert Nickels <ranickel at comcast.net> wrote:

> I've been fooling with an old channelized commercial radio that has
> three 6146s in parallel in the PA. It's working more or less, but I've
> noticed that the longer I put RF through it, the greater the output.
> Using a Bird and 50 ohm dummy load, I've seen the power increase by a
> factor of 2 and you can actually see the needle rise as you keep the rig
> keyed.

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> out of service for 20 years or more. Is this some kind of rejuvenation
> effect, or what?

>

> 73, Bob W9RAN

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From k7rpx at yahoo.com Fri Apr 12 22:42:28 2013
From: k7rpx at yahoo.com (Ken warren)
Date: Fri, 12 Apr 2013 19:42:28 -0700 (PDT)
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <001d01ce37ed\$4db90130\$4301a8c0@KB6NAX>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpgSLPLw__zeaYcsQYw@mail.gmail.com>
<001d01ce37ed\$4db90130\$4301a8c0@KB6NAX>
Message-ID: <1365820948.34114.YahooMailNeo@web163803.mail.gq1.yahoo.com>

?

Ken Warren K7RPX

I have been using gasket material from the local auto store, just draw the cutout hole and cut it out with an exact o? knife. comes in various thicknesses.

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From johnmb at nc.rr.com Sat Apr 13 07:50:38 2013
From: johnmb at nc.rr.com (john)
Date: Sat, 13 Apr 2013 07:50:38 -0400
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <001d01ce37ed\$4db90130\$4301a8c0@KB6NAX>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
<001d01ce37ed\$4db90130\$4301a8c0@KB6NAX>
Message-ID: <6.2.1.2.2.20130413075013.0252c910@pop-server.nc.rr.com>

Didn't they often use cork as well? That should be easy enough to punch out.

John

At 10:19 PM 4/12/2013, Arden Allen wrote:
> > I need some 0.75" diameter, .030" thick, with hole for #10
> screw.
>
>A 0.75 in. dia. washer is easy to make from the cardboard separators that
>come with the dog biscuits my dogs consume by the ton. I've got a stack
>of those cardboard sheets about eight inches high and try as I do to reduce
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>I love a dog. He does nothing for political reasons.
>-Will Rogers
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>BoatAnchors mailing list
>BoatAnchors at theporch.com
><https://minime.theporch.com/mailman/listinfo/boatanchors>

From navy.radio at gmail.com Sat Apr 13 08:35:01 2013

From: navy.radio at gmail.com (Nick England)
Date: Sat, 13 Apr 2013 08:35:01 -0400
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <1365820948.34114.YahooMailNeo@web163803.mail.gq1.yahoo.com>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0u.jpSLPLw__zeaYcsQYw@mail.gmail.com>
<001d01ce37ed\$4db90130\$4301a8c0@KB6NAX>
<1365820948.34114.YahooMailNeo@web163803.mail.gq1.yahoo.com>
Message-ID: <CAB55hNd5KfeN1CJ52UEEnen+62u6igrj6ur_e9fmfnhFqwxpyA@mail.gmail.com>

Many thanks for the various suggestions - yep looks like I'll need to make my own from rubberized cork gasket material, dog biscuit boxes, etc. More likely I'll go rob some from my pal K4OZY and then it'll become his problem some time in the future.

These are going into the tank circuit area of a 500w Navy transmitter so I had hoped to match the ones that were already there (and had already demonstrated resistance to high temps and mouse pee).

I just figured I was missing something - if Keystone was still in business selling ceramic standoffs, how come no one was selling the phenolic washers you needed to go with them. More evidence of the general decline of western civilization I suppose.

Thanks for all the useful (and often humorous) responses. It is great to have a gang of friends who are always cheerfully eager to help me get ever deeper into trouble :-)

Nick K4NYW

On Fri, Apr 12, 2013 at 10:42 PM, Ken warren <k7rpx at yahoo.com> wrote:

>
>
>
> Ken Warren K7RPX
>
>
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> I have been using gasket material from the local auto store, just draw the
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> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From donreaves at gmail.com Sat Apr 13 11:26:58 2013
From: donreaves at gmail.com (Don Reaves)
Date: Sat, 13 Apr 2013 10:26:58 -0500
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <CAB55hNd5KfeN1CJ52UEEnen+62u6igrj6ur_e9fmfnhFqwxpyA@mail.gmail.com>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com>
<001d01ce37ed\$4db90130\$4301a8c0@KB6NAX>
<1365820948.34114.YahooMailNeo@web163803.mail.gq1.yahoo.com>
<CAB55hNd5KfeN1CJ52UEEnen+62u6igrj6ur_e9fmfnhFqwxpyA@mail.gmail.com>
Message-ID: <CAEj02LbyFJ+_89Y71dHj-zVxGkgaQoFa3p0-yU0vLA4sQ5+iaaw@mail.gmail.com>

Nick,

Keystone still makes washers.

<http://www.keyelco.com/products/specs/spec41.asp#quarter>

Looks to me like you might need #3137 fibre or #3140 nylon, although the screw hole is slightly larger than #10.

Perhaps you could request enough samples to finish your project.

Or order 10,000 for a life time supply. :-)

73

Don

W50R

On Sat, Apr 13, 2013 at 7:35 AM, Nick England <navy.radio at gmail.com> wrote:

> Many thanks for the various suggestions - yep looks like I'll need to
> make my own from rubberized cork gasket material, dog biscuit boxes,
> etc. More likely I'll go rob some from my pal K40ZY and then it'll
> become his problem some time in the future.

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> On Fri, Apr 12, 2013 at 10:42 PM, Ken warren <k7rpx at yahoo.com> wrote:
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> > Ken Warren K7RPX
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>

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Don Reaves W5OR WD2XSH/15
8101 Barrett Rd. Roland AR 72135
VOIP landline: 501.420.3661

From infomet at embarqmail.com Sat Apr 13 13:18:29 2013
From: infomet at embarqmail.com (Wilson Lamb)
Date: Sat, 13 Apr 2013 13:18:29 -0400
Subject: [BoatAnchors] Phenolic washers to use with ceramic standoffs
In-Reply-To: <CAEj02LbyFJ+_89Y71dHj-zVxGkgaQoFa3p0-yU0vLA4sQ5+iaw@mail.gmail.com>
References: <CAB55hNc0yhAVki=JY9=x4yoZ0-bQsX0ujpSLPLw__zeaYcsQYw@mail.gmail.com><001d01ce37ed\$4db90130\$4301a8c0@KB6NAX><1365820948.34114.YahooMailNeo@web163803.mail.gq1.yahoo.com><CAB55hNd5KfeN1CJ52UEEnen+62u6igrj6ur_e9fmfnhFqwxyA@mail.gmail.com>
<CAEj02LbyFJ+_89Y71dHj-zVxGkgaQoFa3p0-yU0vLA4sQ5+iaw@mail.gmail.com>
Message-ID: <FBA703D762A64D91853EF2AE9F1B034F@WilsonPC>

Finding a washer can be a real problem!
I got some help from my wife during one of my searches...she insisted on a Maytag!
WL

-----Original Message-----

From: Don Reaves
Sent: Saturday, April 13, 2013 11:26 AM
To: Boatanchors
Subject: Re: [BoatAnchors] Phenolic washers to use with ceramic standoffs

Nick,

Keystone still makes washers.

<http://www.keyelco.com/products/specs/spec41.asp#quarter>

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Don
W5OR

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>

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Don Reaves W5OR WD2XSH/15
8101 Barrett Rd. Roland AR 72135
VOIP landline: 501.420.3661

From arc5 at ix.netcom.com Sat Apr 13 14:02:55 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 13 Apr 2013 13:02:55 -0500
Subject: [BoatAnchors] Sharpening the RU Receiver with Regeneration
Message-ID: <EC49F836E37E442D9486FF7136DD6401@CompaqSR5710F>

With the very kind help of many of our members, I've gotten the
GF-10 / RU-15 Naval Reserve Command Set up and making contacts.
Still need to dress cables, clean and touch-up some spots
and mount the "Test" meter, but it's getting close:

<http://home.netcom.com/~arc5/GFRU.JPG>

The RU is a TRF receiver and was intentionally designed to be broad. To "tighten it up" for use on the Amateur bands one can introduce regeneration between the TRF stages. I've been "noodling" how to do this in a simple, non-destructive way. The answer was indeed simple:

Strip a quarter-inch of stiff hook-up and tuck that end under the grid cap of the second tube from the front. Run the wire out the top. Bend the other end back on itself to make about a three-inch "loop" and poke it through the side vent hole nearest the grid cap of the fourth tube. The idea is to use friction between the sides of the vent hole and the loop to keep the loop in place. Tune to the freq you want, then *carefully* move the loop in and out until the regeneration is just right. It is very touchy and will require effort, but you will be rewarded with weak signals coming up out of the noise and sharp tuning. If it motorboats, pull the loop back a bit. In fact, you can get the bandpass TOO sharp and distort AM audio. The audio output level will also have an effect on regeneration.

Here is a short .WMA video file showing what can be done if you work at this. The two QSOs from this morning were at 3880 and 3890 KCs.

I did not get the bandpass as tight as I could have. You can see the white feedback wire in the background. With no regeneration, you would hear both QSOs at some level. The file is a just under 4 MB:

<http://home.netcom.com/~arc5/RURegen.wmv>

Use "MANUAL" mode when adjusting regeneration. As with any regen receiver- if you move far in frequency, you must re-adjust the regeneration. However, this is offset, at least for me, by the fact that AM activity here is limited to a few established frequencies. I don't need to change things around often. I'm not trying to work the Itchy Armpit, Idaho QSO Party afterall.

I'm thinking of how to use the vent hole as a mounting point for a "hank-n-whack free," screw-adjustable feedback plate which could be moved back and forth with a knob adjustment. This is similar to the idea used in the U.K. TR9D, where a phenolic cylinder with a long screw adjustment creates a fractional-picoFarad capacitor used for smooth control of regeneration.

More on the project later.

73 DE Dave AB5S

From mike at oldaudio.net Sat Apr 13 10:16:30 2013
From: mike at oldaudio.net (Mike Durff)
Date: Sat, 13 Apr 2013 07:16:30 -0700 (PDT)
Subject: [BoatAnchors] phenolic washers
Message-ID: <1365862590.6605.YahooMailNeo@web5705.biz.mail.ne1.yahoo.com>

Go to ebay & look for this seller: ??productcomponents? under business & industrial supply.
He has all sizes of phenolic washers & other various & sundry items. His store shows 1975 items.
The phenolic washers come in a 30 PK for 7.88 +/-.

From brianclarke01 at optusnet.com.au Sat Apr 13 19:21:40 2013
From: brianclarke01 at optusnet.com.au (Brian Clarke)
Date: Sun, 14 Apr 2013 09:21:40 +1000
Subject: [BoatAnchors] Sharpening the RU Receiver with Regeneration
References: <EC49F836E37E442D9486FF7136DD6401@CompaqSR5710F>
Message-ID: <830AADD8F5B94CDEACEF78EB583E0B37@WORKSHOP>

Hello Dave,

Great looking components. However, I would suggest a few layout mods:

1. Shift the antenna changeover box to the very top of your control stack so neither you nor any other 'investigator' can get across the RF at PTT time
2. Put the remote tuning control at the bottom of the control stack so it's closest to your 'operating' hand
3. Remove the right-angle drives in the tuning cable set-up - they will add friction and require lubrication, compared with a straight tuning cable.

Otherwise, well done!

BTW, your 121 connectors went to your Nevada, Texas address yesterday by Airmail.

73 de Brian, VK2GCE.

On Sunday, April 14, 2013 4:02 AM, you shared with us:

> With the very kind help of many of our members, I've gotten the GF-10 /
> RU-15 Naval Reserve Command Set up and making contacts.
> Still need to dress cables, clean and touch-up some spots

> and mount the "Test" meter, but it's getting close:
>
> <http://home.netcom.com/~arc5/GFRU.JPG>
>
> The RU is a TRF receiver and was intentionally designed to
> be broad. To "tighten it up" for use on the Amateur bands
> one can introduce regeneration between the TRF stages.
> I've been "noodling" how to do this in a simple, non-destructive way.
> The answer was indeed simple:
> Strip a quarter-inch of stiff hook-up and tuck that end
> under the grid cap of the second tube from the front.
> Run the wire out the top. Bend the other end back on
> itself to make about a three-inch "loop" and poke it through the side vent
> hole nearest the grid cap of the fourth tube. The idea is to use friction
> between the sides of the vent hole and the loop to keep the loop
> in place. Tune to the freq you want, then *carefully*
> move the loop in and out until the regeneration is just right.
> It is very touchy and will require effort, but you will be rewarded with
> weak signals coming up out of the noise
> and sharp tuning. If it motorboats, pull the loop back a bit.
> In fact, you can get the bandpass TOO sharp and distort AM audio.
> The audio output level will also have an effect on regeneration.
>
> Here is a short .WMA video file showing what can be done if you work at
> this. The two QSOs from this morning
> were at 3880 and 3890 KCs. I did not get the bandpass as tight as I could
> have. You can see the white feedback wire in the background.
> With no regeneration, you would hear both QSOs at some level. The file is
> a just under 4 MB:
>
> <http://home.netcom.com/~arc5/RURegen.wmv>
>
> Use "MANUAL" mode when adjusting regeneration.
> As with any regen receiver- if you move far in frequency,
> you must re-adjust the regeneration. However, this is offset, at least
> for me, by the fact that AM activity here
> is limited to a few established frequencies. I don't need to change
> things around often. I'm not trying to work
> the Itchy Armpit, Idaho QSO Party afterall.
> I'm thinking of how to use the vent hole as a mounting point for a
> "hank-n-whack free," screw-adjustable feedback plate which could be moved
> back and forth with a knob adjustment. This is similar to the idea used
> in the U.K. TR9D, where a phenolic cylinder with a long screw adjustment
> creates a fractional-picoFarad capacitor used for smooth control of
> regeneration.
>
> More on the project later.
>

> 73 DE Dave AB5S

From arc5 at ix.netcom.com Sat Apr 13 20:16:25 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 13 Apr 2013 19:16:25 -0500 (GMT-05:00)
Subject: [BoatAnchors] Sharpening the RU Receiver with Regeneration
Message-ID: <16613428.1365898585877.JavaMail.root@wamui-hunyo.atl.sa.earthlink.net>

-----Original Message-----

>From: Brian Clarke <brianclarke01 at optusnet.com.au>

>Great looking components.

Thank you kindly, sir, and for your help with this set.

>1. Shift the antenna changeover box to the very top of your control stack so
>neither you nor any other 'investigator' can get across the RF at PTT time

I did that in the past with a set, but the long single-wire run from the front of the transmitter means a lot of stray RF, which is a problem that must be addressed in these sets in any event.

Also- part of the matching network to transform the Lo-Z output of the transmitter to a 50-Ohm line (an UNUN) is in the antenna switch, so a short run from the transmitter is required.

No burnt fingers so far ;-).

From nbroline at austin.rr.com Sun Apr 14 17:01:23 2013
From: nbroline at austin.rr.com (Nick Broline)
Date: Sun, 14 Apr 2013 16:01:23 -0500
Subject: [BoatAnchors] Wake-up call for 6
In-Reply-To: <mailman.0.1365872400.6664.boatanchors@theporch.com>
References: <mailman.0.1365872400.6664.boatanchors@theporch.com>
Message-ID: <7C6BC7DBA51B4D1D8115193A335CBF68@newdualath>

Bob,

I have experienced this behavior before and attributed it, (perhaps wrongly, to a gassy tube. The tube was a single 6146. With normal drive (3 ma.) I found I could temporarily correct it by mistuning the plate to cause it to draw a large amount of plate current as I watched the plate current. The 6146 initial max plate current would start off quite low...in fact, well

below the loaded plate current. Over a period of 15-20 seconds the plate current would climb until the rated dissipation was reached. After this wake-up call (abuse) the tube behaved as a "normal" 6146, with full output, until it was allowed to rest over an evening. When the tube was not initially treated with this process the plate current remained flat when the plate circuit was tuned through resonance, although the output power peaked weakly with low output.

Of course, plugging in another tube provided nominal performance.

73

Nick Broline

W5FUA

512 327 7425

We shall not cease from exploration
And at the end of exploring
Will be to arrive where we started
And know the place for the first time.

T.S. Eliot--"Little Gidding"

-----Original Message-----

From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of
boatanchors-request at theporch.com

Sent: Saturday, April 13, 2013 12:00 PM

To: boatanchors at theporch.com

Subject: BoatAnchors Digest, Vol 113, Issue 5

Send BoatAnchors mailing list submissions to
boatanchors at theporch.com

To subscribe or unsubscribe via the World Wide Web, visit
<https://minime.theporch.com/mailman/listinfo/boatanchors>
or, via email, send a message with subject or body 'help' to
boatanchors-request at theporch.com

You can reach the person managing the list at
boatanchors-owner at theporch.com

When replying, please edit your Subject line so it is more specific
than "Re: Contents of BoatAnchors digest..."

From navy.radio at gmail.com Mon Apr 15 12:55:22 2013

From: navy.radio at gmail.com (Nick England)

Date: Mon, 15 Apr 2013 12:55:22 -0400

Subject: [BoatAnchors] RBL-3 LF receiver in Calif. needs new home

Message-ID: <CAB55hNeun6+A_xjx_kcJ9CJpnLYwqLxVs4BT=ENPER6S1Fz50A@mail.gmail.com>

I have posted photos at
<http://www.navy-radio.com/rcvrs/rbl-fs.htm>
Contact Herb directly at herbwy6g at att.net

----- Forwarded message -----
From: Herb Vanderbeek <herbwy6g at att.net>
Subject: RBL 3 reciever
To: nick at virhistory.com

I have an RBL-3 Serial # 1341 that I would like to dispose of.
Do you know of any one who would appreciate one.

I am in California.
Thanks, Herb Vanderbeek
WY6G

From jerry7proc at yahoo.com Mon Apr 15 16:39:43 2013
From: jerry7proc at yahoo.com (Jerry Proc)
Date: Mon, 15 Apr 2013 13:39:43 -0700 (PDT)
Subject: [BoatAnchors] FW: Atwater Kent Radio
Message-ID: <1366058383.26623.YahooMailNeo@web121103.mail.ne1.yahoo.com>

?
If any interest, please contact Greg Gilbert directly at: glg-sw17687 at
comcast.net? I'm only forwarding the email so I can't answer any questions about
the radio.?Aparently he has?some?photos of the unit?which?can be requested.?
?

Beginning of forwarded content

?

Hello,

?
I own a Atwater Kent Model 42. Serial # 2145262.
?

I am not skilled at bench testing any tube radio's. What would your cost be to do
a ?smoke test??
?

The radio has been sitting around for 40 years. Looks like a new
AC power cord is needed. The small vernier knob may not be
working?
?

Philco Radio Speaker Model 400 215 Serial No. 8604 needs a new
cord also.
?

Q's:
?

- 1.????? What would the cost be for a complete restoration, if possible?
- 2.????? Any interest in a trade-in for some of your restored radio's for sale?
- 3.????? If the radio is too expensive to repair, can you use it for parts? Would like to find the radio a good home.
- 4.????? Any other folks you know of that would be interested for parts?

?

Looking for any collectors in the Metro Atlanta, GA area. To stop heavy shipping costs, I can drive the radio to location.

?

Thank you for your interest and time.

?

Greg

Marietta, GA

?

?

--

Regards,

Jerry Proc

E-mail: jerry7proc at yahoo.com

From 4cx250b at miamioh.edu Mon Apr 15 23:50:13 2013

From: 4cx250b at miamioh.edu (Jim Garland)

Date: Mon, 15 Apr 2013 21:50:13 -0600

Subject: [BoatAnchors] Unusual homebrew SSB transmitter

Message-ID: <008c01ce3a55\$810ce460\$8326ad20\$miamioh.edu>

Every once in awhile something extremely interesting and fortuitous happens. and today it happened to me when I received an unsolicited email from Gary, KB1LCA, about a homebrew transmitter in his possession. Gary included numerous photos of his transmitter, and after I reviewed them I called him to find out what he knew about it. Gary saw the transmitter pop up on eBay from somebody closing out an estate and bought it, simply because he was so impressed with the workmanship that he didn't want another buyer scrapping it out for the parts. Unfortunately, despite a great effort, he was unable to find out any information about either the builder or the transmitter's history. I can honestly say that this transmitter is as nice an example of the homebrew craft from the vacuum tube era as I have ever seen. It is literally a masterpiece of design and workmanship, the product of hundreds and hundreds of hours of work by some unknown amateur. When I get a chance, I'll upload photos to my website so you can check it out for yourself, in case you missed the eBay posting (as I did). Basically, however, here are some facts.

The transmitter appears to date from the early to mid sixties and is a bandswitched filter-type SSB transmitter (it uses a Collins mechanical filter), with 21 tubes, including a 4CX150a in the final

amplifier. I estimate it to run about 400-500W on SSB and CW. Mechanically, it uses an Eddystone 898 dial and is built on five modular subchasses with point-to-point wiring. These modules plug into a master chassis that contains all the interconnect wiring. Components are of the highest quality - Allen Bradley pots, ceramic rotary switches, IERC tube shields, etc. Clearly, no expense was spared in the construction. The front and rear panel layout and lettering look so professional that I initially assumed it was a commercial rig, or at the very least a commercial prototype. This impression was fostered by the words "Snyder-Teller Model SSB-225-HB" on the front panel. I suppose my initial impression could be correct, but I'm inclined to think now the "HB" on the model number means "homebrew." Who Snyder and Teller were (are?) is a total mystery.

The transmitter was intended to be used with a remote power supply. There are separate connectors on the rear panel for HV, LV, filaments, bias, etc. Cosmetically, the transmitter looks nearly new, with practically no signs of wear or corrosion. Gary has graciously offered to send the transmitter to me, so in a couple of weeks I should have a chance to check it out more thoroughly. In the meantime, if any of you know anything about this radio, I'd really like to hear from you.

Tnx and 73,

Jim Garland W8ZR

From arc5 at ix.netcom.com Tue Apr 16 08:41:52 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Tue, 16 Apr 2013 07:41:52 -0500 (GMT-05:00)
Subject: [BoatAnchors] UTTERLY OT: Delete Now!
Message-ID: <8980437.1366116112978.JavaMail.root@wamui-june.atl.sa.earthlink.net>

After such a terrible event,
wash your eyes out (and renew your faith in common decency
with this:

<http://tinyurl.com/ce2bfqv>

From 4cx250b at miamioh.edu Tue Apr 16 08:49:24 2013
From: 4cx250b at miamioh.edu (Jim Garland)
Date: Tue, 16 Apr 2013 06:49:24 -0600
Subject: [BoatAnchors] Photos - Mystery Homebrew Transmitter
Message-ID: <00f101ce3aa0\$d3ac8400\$7b058c00@miamioh.edu>

I've uploaded some photos of the mystery homebrew SSB transmitter to <http://w8zrmysteryhomebrewtransmitter.shutterfly.com/pictures/8> .Just click on the link and then on the individual photos in the album. No signin is required.

Let me know if you can figure anything out about the transmitter. Ii'm particularly interested if the design was based on a commercial transmitter, since no documentation on the circuitry is available.

Tnx and 73,

Jim W8ZR

From oldradio at comcast.net Tue Apr 16 09:49:28 2013
From: oldradio at comcast.net (oldradio at comcast.net)
Date: Tue, 16 Apr 2013 13:49:28 +0000 (UTC)
Subject: [BoatAnchors] Photos - Mystery Homebrew Transmitter
In-Reply-To: <00f101ce3aa0\$d3ac8400\$7b058c00\$miamioh.edu>
Message-ID:
<759364992.362240.1366120168969.JavaMail.root@sz0213a.westchester.pa.mail.comcast.net>

Hi Jim and all,

Excellent! What a nice transmitter.

Please ask the owner to query the Ebay seller where he got it. There must be some sort of trail we can follow to the designer/builder.

And - I'll bet - There are other examples from the builder around. He certainly didn't build that as a first project. One give away, if other projects are still in existence, are the terminal strips under the chassis. That may have been his style?

Thanks for posting the photos. I'll look again this afternoon. Have to run now.

73, John Dilks, K2TQN

.-.

----- Original Message -----

From: "Jim Garland" <4cx250b at miamioh.edu>

To: boatanchors at theporch.com
Sent: Tuesday, April 16, 2013 8:49:24 AM
Subject: [BoatAnchors] Photos - Mystery Homebrew Transmitter

I've uploaded some photos of the mystery homebrew SSB transmitter to <http://w8zrmysteryhomebrewtransmitter.shutterfly.com/pictures/8> .Just click on the link and then on the individual photos in the album. No signin is required.

Let me know if you can figure anything out about the transmitter. Ii'm particularly interested if the design was based on a commercial transmitter, since no documentation on the circuitry is available.

Tnx and 73,

Jim W8ZR

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Tue Apr 16 13:27:09 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Tue, 16 Apr 2013 10:27:09 -0700
Subject: [BoatAnchors] UTTERLY OT: Delete Now!
References: <8980437.1366116112978.JavaMail.root@wamui-june.atl.sa.earthlink.net>
Message-ID: <001401ce3ac7\$a39be950\$4301a8c0@KB6NAX>

> After such a terrible event, wash your eyes out (and renew your faith in common decency
with this: <http://tinyurl.com/ce2bfqv>

David, common decency has always been around but we celebrate through the media the whackos and extremists and the effect they have on us while they enjoy their infamy. It's a high tech Roman Carnival...

Arden Allen
KB6NAX

Stupidity is far more dangerous than evil,
for evil takes a break from time to time,
stupidity does not. - Anatole France .

From wiltelco at charter.net Mon Apr 15 20:38:00 2013
From: wiltelco at charter.net (Lionel Williams)
Date: Mon, 15 Apr 2013 19:38:00 -0500
Subject: [BoatAnchors] A couple of mysteries for me
Message-ID: <CD92079C.3B21%wiltelco@charter.net>

Hi

I'm new to Boatanchors. I have a couple of radios that I can't seem to identify. Pictures are attached. One is obviously a BC221 for airborne use, but there is no data plate anywhere on it, including the inside of case. I'd really like a reference so I can try to get it up and running.

The other is an unusual HRO?Ser. J38. It doesn't have the xtal filter control, like the ?Junior?, but it has the S Meter and the pull-type switch as in the ?Senior?. The meter appears to have been added later, but the hole is so clean that it looks like a factory job. I don't have the PS for this yet, so I haven't been able to try it out.

Any ideas?

Thanks

Lionel, K5LW

From ark at ar88.net Tue Apr 16 15:45:04 2013
From: ark at ar88.net (Al Klase)
Date: Tue, 16 Apr 2013 15:45:04 -0400
Subject: [BoatAnchors] A couple of mysteries for me
In-Reply-To: <CD92079C.3B21%wiltelco@charter.net>
References: <CD92079C.3B21%wiltelco@charter.net>
Message-ID: <516DAA40.5040406@ar88.net>

Hello Lionel,

Welcome to the list.

BC-221 manual here: <http://bama.edebris.com/manuals/military/bc221/>

Make yourself familiar with BAMA. A lot of what you're going to need in there: <http://bama.edebris.com/manuals/>

As far as I know, all HRO Seniors had a crystal filter. I "believe" the Jxx serial number indicates that it was a Junior originally.

Regards,

Al

On 4/15/2013 8:38 PM, Lionel Williams wrote:

> Hi
>
> I'm new to Boatanchors. I have a couple of radios that I can't seem to
> identify. Pictures are attached. One is obviously a BC221 for airborne
> use, but there is no data plate anywhere on it, including the inside of
> case. I'd really like a reference so I can try to get it up and running.
>
> The other is an unusual HR0?Ser. J38. It doesn't have the xtal filter
> control, like the ?Junior?, but it has the S Meter and the pull-type switch
> as in the ?Senior?. The meter appears to have been added later, but the
> hole is so clean that it looks like a factory job. I don't have the PS for
> this yet, so I haven't been able to try it out.
>
> Any ideas?
>
> Thanks
>
> Lionel, K5LW
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

--

Al Klase - N3FRQ
Jersey City, NJ
<http://www.skywaves.ar88.net/>

From wb0eq at yahoo.com Wed Apr 17 18:16:23 2013
From: wb0eq at yahoo.com (John Sehring)
Date: Wed, 17 Apr 2013 15:16:23 -0700 (PDT)
Subject: [BoatAnchors] Blue ribbon connectors
Message-ID: <1366236983.81151.YahooMailNeo@web161003.mail.bf1.yahoo.com>

Hi All,

I remember the bright blue of electronic connectors (probably Amphenol) all through the USAF's F-105D Thunderchief fighter/bombers I worked on as kid avionics tech in the mid-60s. ?My specialty was automatic flight controls. ?It was very complex indeed.

I have acquired a Singer Metrics SSB-50 spectrum analyzer. ?It fits into two 19" racks ("mainframes").

See: ?<http://www.bunkerofdoom.com/lit/singer/>
bottom of page.

All the modules of it plug into the mainframe using Amphenol's "Blue Ribbon" connectors. ?They are all #26-190-16's (one female & one male, for sure!).

For maintenance, so I can pull the modules out to work on them, I'll need an "extender" which is of course missing!!!

I could fabricate some if only I had a connector pair.?

See them: ?<http://www.alliedelec.com/search/productdetail.aspx?sku=70144698>

Part number on female connector is 26-190-16.

Prices are on the moon, ?\$136! ?That's waaay more than I paid for equipment.

So I issue a plaintive call here...are there any of these, in almost any condition, out there in Boat Anchor-land? ?I do not want to have to scrap this spectrum analyzer just due to this lack.

I am willing of course to pay a *reasonable* amount for them.
?

--John Sehring ?WB0EQ-VE6EQR ? nr Calgary, Alberta, Canada

From wb3fau55 at neo.rr.com Wed Apr 17 19:04:26 2013
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Wed, 17 Apr 2013 19:04:26 -0400
Subject: [BoatAnchors] Blue ribbon connectors
In-Reply-To: <1366236983.81151.YahooMailNeo@web161003.mail.bf1.yahoo.com>
Message-ID: <20130417230426.EVULJ.23122.root@cdptpa-web07-z02>

John, try Fair Radio Sales or Surplus Sales of Nebraska, likely Fair will have them a lot cheaper...Russ.

---- John Sehring <wb0eq at yahoo.com> wrote:

> Hi All,

>

> I remember the bright blue of electronic connectors (probably Amphenol) all through the USAF's F-105D Thunderchief fighter/bombers I worked on as kid avionics tech in the mid-60s. ?My specialty was automatic flight controls. ?It was very complex indeed.

>

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>

> See: ?<http://www.bunkerofdoom.com/lit/singer/>

> bottom of page.

>

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>

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>

> See them: ?<http://www.alliedelec.com/search/productdetail.aspx?sku=70144698>

>

>

>

> Part number on female connector is 26-190-16.

>

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>

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>

> I am willing of course to pay a *reasonable* amount for them.

> ?

> --John Sehring ?WB0EQ-VE6EQR ? nr Calgary, Alberta, Canada

> -----

> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From wb0eq at yahoo.com Wed Apr 17 21:50:05 2013

From: wb0eq at yahoo.com (John Sehring)

Date: Wed, 17 Apr 2013 18:50:05 -0700 (PDT)

Subject: [BoatAnchors] Fw: Blue ribbon connectors

In-Reply-To: <391DFA1B-AD55-4DCE-AC5A-473651C4F3E8@gmail.com>

References: <1366236983.81151.YahooMailNeo@web161003.mail.bf1.yahoo.com>
 <391DFA1B-AD55-4DCE-AC5A-473651C4F3E8@gmail.com>

Message-ID: <1366249805.18334.YahooMailNeo@web161006.mail.bf1.yahoo.com>

John,

Great tip! ?I've not yet owned an older Tek scope, so this is golden. ?I reckon

it'll be far easier to find the Tek extension (whether the rigid or flex model) than connectors. ?Saw just one (sale was ended) of these at ePay.

Thanks for the electronicsurplus source. ?I can't tell if their connector? Amphenol ?26-4100-16P?is compatible with with the 26-190-16 in my equipment. ? Don't know offhand what the middle of the part # (190 and 4100) mean. ?Also need other gender of this connector, which is not listed on this site.
?

--John Sehring ?WB0EQ-VE6EQR ? nr Calgary, Alberta, Canada

----- Forwarded Message -----

> From: John Shriver <john.shriver at gmail.com>
> To: John Sehring <wb0eq at yahoo.com>
> Cc:
> Sent: Wednesday, April 17, 2013 6:11 PM
> Subject: Re: [BoatAnchors] Blue ribbon connectors
>
>T he Tektronix letter (A through Z) and 1-series plugins used these same
> connectors.
>
> So if someone's parting out some of these scopes (it happens) that could be
> a source.
>
> Also, Tek made rigid and flexible extenders.? The rigid one is part 013-0055-00
> (earlier 013-055), the flexible one is 012-0038-01 (earlier 012-038).? But, some
> connections are wires, some are coax, that may not be compatible with the pin
> assignments in your spectrum analyzers, so you may need to rewire them.
>
> Also, this site
> (http://www.electronicsurplus.com/LeftNav/Connectors/Blue_Ribbon.cat) has new
> 16-pin male Amphenol 26-4100-16P blue ribbon connectors for \$12.99.
>

From cbmcg at comcast.net Thu Apr 18 22:55:50 2013
From: cbmcg at comcast.net (cbmcg at comcast.net)
Date: Fri, 19 Apr 2013 02:55:50 +0000 (UTC)
Subject: [BoatAnchors] Fw: Blue ribbon connectors
In-Reply-To: <1366249805.18334.YahooMailNeo@web161006.mail.bf1.yahoo.com>
Message-ID:
<1574456630.1076194.1366340150456.JavaMail.root@sz0077a.emeryville.ca.mail.comcast.net>

John-

Amphenol 26-190 and 26-4100 have different pin spacing and will not cross-mate.
I have sent you email, at your yahoo.com address, describing some 26-190-16 and

mating 26-159-16
connectors I have available.
73,
Chuck K7MCG

----- Original Message -----

From: "John Sehring" <wb0eq at yahoo.com>
To: "Boatanchors List" <boatanchors at theporch.com>
Sent: Wednesday, April 17, 2013 6:50:05 PM
Subject: [BoatAnchors] Fw: Blue ribbon connectors

John,

Great tip! I've not yet owned an older Tek scope, so this is golden. I reckon it'll be far easier to find the Tek extension (whether the rigid or flex model) than connectors. Saw just one (sale was ended) of these at ePay.

Thanks for the electronicssurplus source. I can't tell if their connector Amphenol 26-4100-16P is compatible with with the 26-190-16 in my equipment. Don't know offhand what the middle of the part # (190 and 4100) mean. Also need other gender of this connector, which is not listed on this site.

--John Sehring WB0EQ-VE6EQR nr Calgary, Alberta, Canada

----- Forwarded Message -----

> From: John Shriver <john.shriver at gmail.com>
> To: John Sehring <wb0eq at yahoo.com>
> Cc:
> Sent: Wednesday, April 17, 2013 6:11 PM
> Subject: Re: [BoatAnchors] Blue ribbon connectors
>
> The Tektronix letter (A through Z) and 1-series plugins used these same
> connectors.
>
> So if someone's parting out some of these scopes (it happens) that could be
> a source.
>
> Also, Tek made rigid and flexible extenders. The rigid one is part 013-0055-00
> (earlier 013-055), the flexible one is 012-0038-01 (earlier 012-038). But, some
> connections are wires, some are coax, that may not be compatible with the pin
> assignments in your spectrum analyzers, so you may need to rewire them.
>
> Also, this site
> (http://www.electronicssurplus.com/LeftNav/Connectors/Blue_Ribbon.cat) has new
> 16-pin male Amphenol 26-4100-16P blue ribbon connectors for \$12.99.

>

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From: beckrep at citlink.net Thu Apr 18 23:21:49 2013
From: beckrep at citlink.net (Paul Beckwith)
Date: Thu, 18 Apr 2013 20:21:49 -0700
Subject: [BoatAnchors] Photos - Mystery Homebrew Transmitter
Message-ID: <fb13bf\$b4u89i@out02.dlcs.pa.frontiernet.net>

Hi Jim and all,

Excellent! What a nice transmitter.

Please ask the owner to query the Ebay seller where he got it. There must be some sort of trail we can follow to the designer/builder.

And - I'll bet - There are other examples from the builder around. He certainly didn't build that as a first project. One give away, if other projects are still in existence, are the terminal strips under the chassis. That may have been his style?

Thanks for posting the photos. I'll look again this afternoon. Have to run now.

73, John Dilks, K2TQN

.-.

----- Original Message -----

From: "Jim Garland" <4cx250b at miamioh.edu>
To: boatanchors at theporch.com
Sent: Tuesday, April 16, 2013 8:49:24 AM
Subject: [BoatAnchors] Photos - Mystery Homebrew Transmitter

I've uploaded some photos of the mystery homebrew SSB transmitter to <http://w8zrmysteryhomebrewtransmitter.shutterfly.com/pictures/8>. Just click on the link and then on the individual photos in the album. No sign in is required.

Let me know if you can figure anything out about the transmitter. I'm particularly interested if the design was based on a commercial

transmitter, since no documentation on the circuitry is available.

Tnx and 73,

Jim W8ZR

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From 1oldlens1 at ix.netcom.com Fri Apr 19 00:21:13 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Thu, 18 Apr 2013 21:21:13 -0700
Subject: [BoatAnchors] Photos - Mystery Homebrew Transmitter
References: <fb13bf\$b4u89i@out02.dlts.pa.frontiernet.net>
Message-ID: <F5496456A2B34CA785C7B2403A40093E@VALUED20606295>

----- Original Message -----

From: "Paul Beckwith" <beckrep at citlink.net>
To: <nu6x at esedona.net>
Cc: <boatanchors at theporch.com>
Sent: Thursday, April 18, 2013 8:21 PM
Subject: Re: [BoatAnchors] Photos - Mystery Homebrew
Transmitter

> Hi Jim and all,
>
> Excellent! What a nice transmitter.
>
> Please ask the owner to query the Ebay seller where he got
> it. There must be some sort of trail we can follow to the
> designer/builder.
>
> And - I'll bet - There are other examples from the builder
> around. He certainly didn't build that as a first
> project. One give away, if other projects are still in
> existence, are the terminal strips under the chassis.
> That may have been his style?
>

> Thanks for posting the photos. I'll look again this
> afternoon. Have to run now.
>
> 73, John Dilks, K2TQN
>

There were some custom builders, perhaps this is a product of one. For instance, the publishers of the "Radio Handbook" had an offer in some of them to duplicate equipment described in the book. This rig does not quite look neat enough. For instance, the wiring harness appears to have been built as needed and then laced together where a commercial rig would have a pre-built harness. It is certainly an astonishing piece of work.

--

Richard Knoppow
Los Angeles
WB6KBL
dickburk at ix.netcom.com

From pulsarxp at embarqmail.com Fri Apr 19 00:03:01 2013
From: pulsarxp at embarqmail.com (L L bahr)
Date: Fri, 19 Apr 2013 00:03:01 -0400 (EDT)
Subject: [BoatAnchors] Second Story RF Ground
In-Reply-To: <fb13bf\$b4u89i@out02.dl1s.pa.frontiernet.net>
Message-ID:
<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>

For now, my ham shack is in a bedroom on the second floor of the house. I want to improve my RF ground. (Not easy to do when you are on the second floor). That said, I am thinking of using a 10 foot section of aluminum gutter downspout for the conductor. (I'd put a ground rod in the ground at the downspout base). It sure would give me a lot of "surface area" so I am thinking this would give me a needed low resistance to keep the radiating to a minimum as I can't have a short lead to the ground stake. I'm wondering if anyone has tried this? Sure would be a small number 8 wire! You guys have any ideas on this idea?

Lee, w0vt
Houston, TX

From spr at earthlink.net Fri Apr 19 00:33:23 2013
From: spr at earthlink.net (Scott Robinson)
Date: Thu, 18 Apr 2013 21:33:23 -0700
Subject: [BoatAnchors] Second Story RF Ground

In-Reply-To:

<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>

References:

<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>

Message-ID: <5170C913.5020200@earthlink.net>

Hi Lee,

I'd use a length of 1.5 inch copper water pipe. That you can solder to and get a reliable connection; with aluminum, you'll be forever fiddling with the connections at the ends to keep ahead of the aluminum oxide. Just ask anyone who's had aluminum wiring in his house how many electrical fires he's had. It will cost more, but...

Here's to good grounding and clear radiating.

/scott

On 4/18/13 9:03 PM, L L bahr wrote:

> For now, my ham shack is in a bedroom on the second floor of the house. I want to improve my RF ground. (Not easy to do when you are on the second floor). That said, I am thinking of using a 10 foot section of aluminum gutter downspout for the conductor. (I'd put a ground rod in the ground at the downspout base). It sure would give me a lot of "surface area" so I am thinking this would give me a needed low resistance to keep the radiating to a minimum as I can't have a short lead to the ground stake. I'm wondering if anyone has tried this? Sure would be a small number 8 wire! You guys have any ideas on this idea?

>

> Lee, w0vt

> Houston, TX

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

>

From dxguy at earthlink.net Fri Apr 19 01:22:38 2013

From: dxguy at earthlink.net (don davis)

Date: Thu, 18 Apr 2013 22:22:38 -0700

Subject: [BoatAnchors] Second Story RF Ground

In-Reply-To: <5170C913.5020200@earthlink.net>

References:

<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>

<5170C913.5020200@earthlink.net>

Message-ID: <!!

AAAAAAAAAAAAA03NLm+r0kBf0+eoE0IVyavCgAAAAEAAAFEpKEp7kh1JhBwhhNzMBjwBAAAAAA

==@earthlink.net>

Or, could use thin copper sheet 12" wide (or a pipe like Scott says) down to a good copper plated 10' ground rod (or 2 or 3). Placement of radio bench against the wall, with a pass-hole down low (to get the ground from inside to outside) to keep all ground paths as short as possible should work great. On my wall behind the radio I use a 1/2" copper pipe held in place using the 2 brackets from a toilet paper holder. I run separate 4AWG super-flex copper cable from each unit in the shack with crimped and soldered lugs at the unit grounds or cases to the ground bus. I use Home Depot brass ground clamps for this. Do not daisy chain ground wires or assume that the coax or ac outlet ground is adequate. Best thing is that all of this is available from Home Depot. I have my 2nd story radio room set up this way with no rf problems.

73 de don ad6pb

-----Original Message-----

From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of Scott Robinson

Sent: Thursday, April 18, 2013 9:33 PM

To: L L bahr

Cc: boatanchors at theporch.com

Subject: Re: [BoatAnchors] Second Story RF Ground

Hi Lee,

I'd use a length of 1.5 inch copper water pipe. That you can solder to and get a reliable connection; with aluminum, you'll be forever fiddling with the connections at the ends to keep ahead of the aluminum oxide. Just ask anyone who's had aluminum wiring in his house how many electrical fires he's had. It will cost more, but...

Here's to good grounding and clear radiating.

/scott

On 4/18/13 9:03 PM, L L bahr wrote:

> For now, my ham shack is in a bedroom on the second floor of the house. I want to improve my RF ground. (Not easy to do when you are on the second floor). That said, I am thinking of using a 10 foot section of aluminum gutter downspout for the conductor. (I'd put a ground rod in the ground at the downspout base). It sure would give me a lot of "surface area" so I am thinking this would give me a needed low resistance to keep the radiating to a minimum as I can't have a short lead to the ground stake. I'm wondering if anyone has tried this? Sure would beat a small number 8 wire! You guys have any ideas on this idea?

>

> Lee, w0vt
> Houston, TX
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From cbmcg at comcast.net Fri Apr 19 02:17:49 2013
From: cbmcg at comcast.net (cbmcg at comcast.net)
Date: Fri, 19 Apr 2013 06:17:49 +0000 (UTC)
Subject: [BoatAnchors] Second Story RF Ground
In-Reply-To:
<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>
Message-ID:
<1569032733.1080031.1366352269000.JavaMail.root@sz0077a.emeryville.ca.mail.comcast.net>

I agree that you should use copper, not aluminum. Its highly difficult to make good low resistance connections with aluminum. If there is any risk of a lightning strike, don't solder joints ! Either use dry mechanically clamped joints or a copper welding process like Cadweld.

Goto: <http://www.k2ut.org/cadweld.html> for more information.

73,
Chuck K7MCG

----- Original Message -----
From: "L L bahr" <pulsarxp at embarqmail.com>
To: boatanchors at theporch.com
Sent: Thursday, April 18, 2013 9:03:01 PM
Subject: [BoatAnchors] Second Story RF Ground

For now, my ham shack is in a bedroom on the second floor of the house. I want to improve my RF ground. (Not easy to do when you are on the second floor). That said, I am thinking of using a 10 foot section of aluminum gutter downspout for the conductor. (I'd put a ground rod in the ground at the downspout base). It sure would give me a lot of "surface area" so I am thinking this would give me a needed low resistance to keep the radiating to a minimum as I can't have a short lead to the ground stake. I'm wondering if anyone has tried this? Sure would beet a small number 8 wire! You guys have any ideas on this idea?

Lee, w0vt
Houston, TX

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From w7fe at cox.net Fri Apr 19 02:18:06 2013
From: w7fe at cox.net (w7fe)
Date: Thu, 18 Apr 2013 23:18:06 -0700
Subject: [BoatAnchors] Second Story RF Ground
References:
<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>
Message-ID: <89DC2A799E55466BBE036829D44E5A59@DESKTOP>

I had a second floor shack in Phoenix, and after trying single point ground wiring systems, counterpoise wires on the floor, an even an MFJ artificial ground, I finally found the ideal way to provide a good RF ground. This well-written article by Glen, K9STH, in the last paragraph on page two and on page three, explains the method.

http://www.k9sth.com/uploads/R.F._Grounding_primer_2.pdf

I used the recommended 6 inch aluminum flashing screwed to 1 x 8 pine boards with #10 x 3/8" Phillips pan head sheet metal screws (the boards were mounted at an appropriate height behind the operating area and painted to match the wall prior to application of the flashing). I ran similar boards and flashing down the side of the house to the ground rods which were installed as noted earlier in Glen's article. A piece of flashing passed thru a slot in a board held in place by a window connected the two flashing runs (no window? -- just go thru a slot in the wall. Easily repaired if you move). It resulted in zero RF in the shack, even with 450 ohm ladder line run from my 88 ft doublet into the room and connected to my Johnson matchbox on the operating desk.

Tip: Use a single hole manual paper punch to put holes along the edges of the flashing. Leave the mounting screws loose until everything is in place. Then snug the screws starting at one end and working to the other, keeping the flashing tight against the board with your free hand. This technique will help to avoid having the flashing become "wavy".due to stresses transmitted thru the flashing by screws forced thru the flashing with no clearance holes and/or overtightened screws.

I now have a separate shack in the back yard, and I built a similar grounding system into it. Additionally, I added about 300 ft of wire laid randomly in all directions below the yard's surface and connected to the ground rods. It's intended to compensate for the poor conductivity sand and

clay earth composition here in the desert. Works really well -- no RF in this shack either.

73 de Stu, W7FE
Henderson, NV

----- Original Message -----

From: "L L bahr" <pulsarxp at embarqmail.com>
To: <boatanchors at theporch.com>
Sent: Thursday, April 18, 2013 9:03 PM
Subject: [BoatAnchors] Second Story RF Ground

> For now, my ham shack is in a bedroom on the second floor of the house. I
> want to improve my RF ground. (Not easy to do when you are on the second
> floor). That said, I am thinking of using a 10 foot section of aluminum
> gutter downspout for the conductor. (I'd put a ground rod in the ground
> at the downspout base). It sure would give me a lot of "surface area" so I
> am thinking this would give me a needed low resistance to keep the
> radiating to a minimum as I can't have a short lead to the ground stake.
> I'm wondering if anyone has tried this? Sure would be a small number 8
> wire! You guys have any ideas on this idea?

>

> Lee, w0vt
> Houston, TX

>

> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Fri Apr 19 02:54:38 2013

From: gumbear at pacbell.net (Arden Allen)

Date: Thu, 18 Apr 2013 23:54:38 -0700

Subject: [BoatAnchors] Second Story RF Ground

References:

<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>

Message-ID: <001301ce3cca\$c88d3200\$4301a8c0@KB6NAX>

> For now, my ham shack is in a bedroom on the second floor of the house. I
want to improve my RF ground. (Not easy to do when you are on the second
floor). That said, I am thinking of using a 10 foot section of aluminum
gutter downspout for the conductor. (I'd put a ground rod in the ground at
the downspout base). It sure would give me a lot of "surface area" so I am
thinking this would give me a needed low resistance to keep the radiating to
a minimum as I can't have a short lead to the ground stake. I'm wondering
if anyone has tried this? Sure would be a small number 8 wire! You guys

have any ideas on this idea?

Lee, I'm reminded of a cliché I picked up at work somewhere that states, "ground is where you find it." That pretty much describes your predicament. I think the "ground" you have in mind is the elusive ***counterpoise*** you've probably run across in antenna theory literature. You'll remember that a counterpoise is a planar conductor that mirrors an antenna thus being part of the actual antenna circuit. Think the quarter wave vertical antenna with the virtual counterpoise radials projecting from the base (all antenna's that radiate power efficiently are half wave in electrical length at the operating frequency). OK, so what does this mean for your seeking ground conundrum? Forget it. No matter what kind of fancy conductor you run to Earth it will be electrically little different than just a plain old piece of wire (of course for lightning protection you want the wire to handle the current of a strike so the wire has to be of sufficient gauge to survive -. the National Electric Code gives requirements for lightning arrestor systems). Getting back to the elusive ground conundrum, you may be able to "draw" ground closer by putting a matching reactance in line with your ground wire. Well, that's not practical because then you would have two matching systems to keep adjusting, not to mention real earth electrical properties change with the weather. It just makes life more complicated, not to speak of what you would have to do to preserve your lightning protection. If you are aiming to get the RF out of the shack the only sensible way is to transport the RF via a ***balanced*** transmission line as far away as possible (but not too close to your grumpy neighbor) and adjust your system properly to keep standing waves off of the transmission line. You may need a matching network at the antenna feed point to make things work well. Good luck.

From w7qho at aol.com Fri Apr 19 03:24:49 2013

From: w7qho at aol.com (mac)

Date: Fri, 19 Apr 2013 00:24:49 -0700

Subject: [BoatAnchors] Second Story RF Ground

In-Reply-To: <89DC2A799E55466BBE036829D44E5A59@DESKTOP>

References:

<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>

<89DC2A799E55466BBE036829D44E5A59@DESKTOP>

Message-ID: <713B7D7E-A212-4B1D-B4D4-F042059862C2@aol.com>

Operated out of a fourth floor shack in West Germany (DA1IN) back in the 70's. Used a 400ft end fed long wire operating against a "ground" that consisted of the building's 50 Hz, 220 volt safety ground and hot water heating system (radiator located next to my operating table). Operated on 80, 40 and 20M ssb using an FT-101B and an FL-2100B linear. Only experienced "RF in the shack" problems on 20M and cured these completely by connecting a 16 ft piece of wire (1/4 wave stub)

to my "ground" system and hanging the end out the window. Achieved significant gain off the ends of the wire (almost 7 wavelengths long on 20M) and got great coverage into S. America and Aus/NZ. Lousy coverage off the sides into N. America, though... :^(

Dennis D. W7QHO
Glendale, CA

From wb0eq at yahoo.com Fri Apr 19 11:42:39 2013
From: wb0eq at yahoo.com (John Sehring)
Date: Fri, 19 Apr 2013 08:42:39 -0700 (PDT)
Subject: [BoatAnchors] Subject: Second Story RF Ground
Message-ID: <1366386159.71682.YahooMailNeo@web161004.mail.bf1.yahoo.com>

Also think about "tuning" your ground system.

Yes, I know that a "perfect" ground is not tunable.

I try L and/or C in series with the ground, use an RF ammeter to tune for max.

Also see RSGB Radio Communications Handbook (11th Ed.), pg. 15-2.

MFJ makes an "artificial" ground, ct same as above reference, series adjustable L and C.

Happy (RF) "earth" day!

=====

Someone else talked about NOT making soldered connections in safety ground. ?Yes, I like nice tight, non-cracklin' connections, too. ?But ya don't want lightning surges to be melting your ground connections!!! ?So they've gotta be mechanically robust.

Which brings me to another point: ?We are talking here about optimizing the RF ground. ?It may or may not be the same as the safety ground.

If you're using a series capacitor in your RF ground (for tuning purposes) AND this is your safety ground as well, then you DON't have an effective safety ground. ?Caveat ground.

?

--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From wb0eq at yahoo.com Fri Apr 19 16:58:35 2013
From: wb0eq at yahoo.com (John Sehring)
Date: Fri, 19 Apr 2013 13:58:35 -0700 (PDT)
Subject: [BoatAnchors] Handy online calculators for guyed antennas
Message-ID: <1366405115.23138.YahooMailNeo@web161005.mail.bf1.yahoo.com>

Hi All,

I just stumbled across a very handy online calculator for guyed antennas from Mastrant.

See: <http://www.mastrant.com/en/calculations>
read intro here and then choose from 4 calculators on right side of web page.

It describes a number of different guyed antenna scenarios. It does detailed calcs of mast and guy adequacy (e.g. resistance to mast buckling) and gives forces on masts & guys for the conditions & materials you select.

Worth reading the introductions to each of them, a good amount of detail & advice here. ?

I don't want to over- or under-design my antenna supports. Yes, I believe in healthy margins but the only way to know that for sure is to have some actual numbers.

Results are given in Newtons of force: ?

1 Newton force = .224 Pounds force. One decaNewton force = about 1 kiloGram force
= 2.2 Pounds force.

?

Enjoy!

--John Sehring VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From gumbear at pacbell.net Fri Apr 19 17:02:38 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 19 Apr 2013 14:02:38 -0700
Subject: [BoatAnchors] Second Story RF Ground
References:
<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com><89DC2A799E55466BBE036829D44E5A59@DESKTOP>
<713B7D7E-A212-4B1D-B4D4-F042059862C2@aol.com>
Message-ID: <001701ce3d41\$3d0aa740\$4301a8c0@KB6NAX>

> Only experienced "RF in the shack" problems on 20M and cured these completely by connecting a 16 ft piece of wire (1/4 wave stub)

to my "ground" system and hanging the end out the window.

Me thinks you exchanged the electrostatic maxima in the shack for the current node in the shack. The biggest problem with RF in the shack, in my experience, is RF getting into other equipment and blowing fuses, rectifier diodes, and in one case opening a wall wart primary. Hot key, light bulbs flashing and hair ends burning are minor problems ;-)

Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

From wb0eq at yahoo.com Fri Apr 19 18:35:04 2013
From: wb0eq at yahoo.com (John Sehring)
Date: Fri, 19 Apr 2013 15:35:04 -0700 (PDT)
Subject: [BoatAnchors] RF grounds
In-Reply-To: <mailman.1.1366390805.48027.boatanchors@theporch.com>
References: <mailman.1.1366390805.48027.boatanchors@theporch.com>
Message-ID: <1366410904.90317.YahooMailNeo@web161002.mail.bf1.yahoo.com>

> ?Think the quarter wave vertical

> antenna with the virtual counterpoise radials projecting from the base (all
> antenna's that radiate power efficiently are half wave in electrical length
> at the oprating frequency).

Oooo, I just couldn't let this last sentence slip on by!

Almost any physical length of antenna can be made to radiate RF efficiently. ?Not just a half-wavelength antenna.

The primary losses will be in the antenna matching arrangement. ?But this ATU is only there to satisfy the limitations of most transmitters which want a 50 ohm resistive load to function properly. ?(Boatanchor tx's are of course much more accommodating of this.)

For example, very short (in terms of wavelength) antennas, as in mobile situations, display very low input resistance and huge reactance. ?Considering the entire equivalent antenna circuit here, you've got tiny (fraction of an ohm) & thousand's of ohms of capacitive reactance as the radiation resistance, and all the rest (resistance of conductors, grounding ?arrangements, impedance to ground (vehicle to earth below it) in series with it. ?So, the radiation resistance being

so very small, gets "lost". ?You'll see radiation efficiencies of a few %.

Now going back to 1/4 or 5/8 or 3/4 or 2 x 5/8 wavelength antennas, all of which are used on HF (and VHF, too) by amateurs for successful contacts...obviously, with suitable (= reasonably efficient) ATU's, they work!

The half-wavelength dipole only came to strong attention following WWII when coaxial feed line appeared in the ham market. ?Coax in practical form wants a 50 or 75 ohm load. ?Dipoles strung up in most environments satisfies that.

The 1/2-wavelength is NOT SACRED! ?It is simply convenient in many apps

> ?Getting back to the elusive ground conundrum, you may be

> able to "draw" ground closer by putting a matching reactance in line
> with?> your ground wire.??

Actually you want the "anti-matching" (opposite sense of) reactance there, to cancel out the existing ground's impedance. ?That way, you'll see only resistance at the RF ground in the shack (or wherever).

>Well, that's not practical because then you would have
> two matching systems to keep adjusting, not to mention real earth electrical
> properties change with the weather. ?It just makes life more complicated,

This is true for EVERY LF, MW, and HF vertical antenna. ?As a broadcast engineer in a previous life, I can assure you that was indeed the purpose for my seasonal visits into the swamp in which the 240' vertical & 120@ 1/4-wavelength radials were installed.

And no, having just one more antenna system control in the shack (the adjustable RF ground reactance cancellation, aka "tuning") is not a problem. ?A typical ATU might have three controls, no?

> not to speak of what you would have to do to preserve your lightning
> protection.??

The RF ground tuning arrangement will very likely have L and/or C in series with it. ?So, yes, there might not be DC continuity through it. ?HOWEVER, this RF ground does NOT have to be in series with the safety ground. ?In fact, arranging it to be in parallel with it is the way to go, IMO. ?This is of course just fine as RF grounds and safety grounds are rarely in the same configuration due to wildly different purposes.

> If you are aiming to get the RF out of the shack the only
> sensible way is to transport the RF via a ***balanced*** transmission line
> as far away as possible (but not too close to your grumpy neighbor) and
> adjust your system properly to keep standing waves off of the transmission

> line.??

Last sentence above, another wives' tale, sorry. ?

Standing waves do NOT cause the feedline, no matter what kind, unbalanced (e.g. coax) or balanced (e.g. open wire), to radiate. ?Feedline radiation occurs due to a lack of impedance balance in the feedline (BTW this is true in the AF realm as well, think recording studio). ?This imbalance leads to current and voltage imbalance. ?And that spoils the normal cancellation of radiating feedline currents.

Nice example is coax center feed of a dipole. ?Unbalanced feed to balanced load = current imbalance at the feedpoint & that radiates. ?Cure? ?Feed it with a balanced feeder. ?Less-good is to use a quality current-type balun with coax.

--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From w7qho at aol.com Fri Apr 19 19:15:36 2013

From: w7qho at aol.com (mac)

Date: Fri, 19 Apr 2013 16:15:36 -0700

Subject: [BoatAnchors] Second Story RF Ground

In-Reply-To: <001701ce3d41\$3d0aa740\$4301a8c0@KB6NAX>

References:

<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com><89DC2A799E55466BBE036829D44E5A59@DESKTOP>

<713B7D7E-A212-4B1D-B4D4-F042059862C2@aol.com>

<001701ce3d41\$3d0aa740\$4301a8c0@KB6NAX>

Message-ID: <C1F21E61-206D-456F-81D5-A495A4EC389F@aol.com>

Yep, understood.... No other excitement of the kinds listed in a year of operation though.

Made DXCC from there but more work getting cards out of folks than working them on the air....

Dennis D. W7QHO
Glendale, CA

On Apr 19, 2013, at 2:02 PM, Arden Allen wrote:

>> Only experienced "RF in the shack" problems on 20M and cured
> these completely by connecting a 16 ft piece of wire (1/4 wave stub)
> to my "ground" system and hanging the end out the window.
>
> Me thinks you exchanged the electrostatic maxima in the shack for the

> current node in the shack. The biggest problem with RF in the
> shack, in my
> experience, is RF getting into other equipment and blowing fuses,
> rectifier
> diodes, and in one case opening a wall wart primary. Hot key, light
> bulbs
> flashing and hair ends burning are minor problems ;-)
>
> Arden Allen
> KB6NAX
>
> Adopt a shelter dog,
> save an innocent life,
> and make a friend forever =:-)
>

From k1lky at earthlink.net Fri Apr 19 22:10:17 2013

From: k1lky at earthlink.net (Roy Morgan)

Date: Fri, 19 Apr 2013 22:10:17 -0400

Subject: [BoatAnchors] Second Story RF Ground

In-Reply-To:

<1569032733.1080031.1366352269000.JavaMail.root@sz0077a.emeryville.ca.mail.comcast.net>

References:

<1569032733.1080031.1366352269000.JavaMail.root@sz0077a.emeryville.ca.mail.comcast.net>

Message-ID: <00FDDDB1-9507-4EC5-9988-AA4102C071A8@earthlink.net>

On Apr 19, 2013, at 2:17 AM, cbmcg at comcast.net wrote:

> ... If there is any risk of a lightning strike, don't solder
> joints ! Either use dry mechanically clamped joints or a copper
> welding process like Cadweld.

I have seen this advice many times, but do not remember any explanations as to why. Can anyone give good reasons for this???

I suspect one or some of the following might be the reason(s):

- solder between copper parts, if exposed to weather, may corrode and produce a bad connection.

- In case of very high currents (kilo-ampere pulse), the solder may melt and produce a connection that is at least momentarily high resistance.

- Unless well done, a soldered connection may be a high resistance point (especially in the presence of kilo-ampere current pulses).
- High current pulses through the solder layer may melt it and cause the joint to fly apart, especially if the solder has been counted upon to keep the parts together (such as with a tower grounding braid or strap soldered to a copper pipe or copper plated driven ground rod)

Roy

Roy Morgan
k1lky at earthlink.net
K1LKY Since 1958 - Keep 'em Glowing!

From k1lky at earthlink.net Fri Apr 19 22:17:43 2013
From: k1lky at earthlink.net (Roy Morgan)
Date: Fri, 19 Apr 2013 22:17:43 -0400
Subject: [BoatAnchors] Second Story RF Ground
In-Reply-To: <89DC2A799E55466BBE036829D44E5A59@DESKTOP>
References:
<1598673851.200487.1366344181653.JavaMail.root@md35.embarq.synacor.com>
<89DC2A799E55466BBE036829D44E5A59@DESKTOP>
Message-ID: <58C6E50F-2168-4C53-86B3-775454907E72@earthlink.net>

On Apr 19, 2013, at 2:18 AM, w7fe wrote:

> ... It resulted in zero RF in the shack, even with 450 ohm ladder
> line run from my 88 ft doublet into the room and connected to my
> Johnson matchbox on the operating desk.

The johnson matchbox is intended to accept power from a coax connection and deliver (tuned) power to a balanced load. This, with the balanced ladder line, is a fine route to much success when driving an antenna with a balanced feed point.

Long live Johnson Matchboxes!

Roy

Roy Morgan
k1lky at earthlink.net
K1LKY Since 1958 - Keep 'em Glowing!

From gumbear at pacbell.net Fri Apr 19 23:39:32 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 19 Apr 2013 20:39:32 -0700
Subject: [BoatAnchors] RF grounds
References: <mailman.1.1366390805.48027.boatanchors@theporch.com>
<1366410904.90317.YahooMailNeo@web161002.mail.bf1.yahoo.com>
Message-ID: <000c01ce3d78\$b1d79ab0\$4301a8c0@KB6NAX>

John, welcome to the teeth picking segment of this thread ;-)

>> Think the quarter wave vertical antenna with the virtual counterpoise radials projecting from the base (all antennas that radiate power efficiently are half wave in electrical length at the operating frequency).

> Oooo, I just couldn't let this last sentence slip on by!

It shouldn't slip by, John, because it's true. If all you have is a transmitter and no transmission line the only way the antenna is going to be most efficient is when it is resonant at the transmitting frequency, except when the transmitter's output impedance is it's exact complement. Any difference in transmitter source resistance and antenna feedpoint resistance will cause power loss in the transmitter only. A matching network transforms the transmitter's output resistance to the antenna's feedpoint resistance. If the antenna is out of resonance at the transmitting frequency then the matching network does double duty by providing a resistive (non reactive) load to the transmitter by cancelling the reactance. So if you're speaking apples and apples you have to separate the green, yellow and red ones.

> Actually you want the "anti-matching" (opposite sense of) reactance there, to cancel out the existing ground's impedance.

Google couldn't find "anti-matching." You can only remove the reactive component of the impedance. When you make the ground lead to earth resonant (not ANTI-resonant) you still have the resistance term of the impedance. If you think of the ground wire as a transmission line then what is the absorption resistance of the earth it's connected to?

>> If you are aiming to get the RF out of the shack the only sensible way is to transport the RF via a ***balanced*** transmission line as far away as possible (but not too close to your grumpy neighbor) and adjust your system properly to keep standing waves off of the transmission

line.

> Last sentence above, another wives' tale, sorry.

> Standing waves do NOT cause the feedline, no matter what kind, unbalanced (e.g. coax) or balanced (e.g. open wire), to radiate. Feedline radiation occurs due to a lack of impedance balance in the feedline (BTW this is true in the AF realm as well, think recording studio). This imbalance leads to current and voltage imbalance. And that spoils the normal cancellation of radiating feedline currents.

Huh? I said nothing about radiation from the feedline. My argument implies that there won't be feedline radiation.

Arden Allen
KB6NAX

From wb0eq at yahoo.com Sat Apr 20 17:29:55 2013
From: wb0eq at yahoo.com (John Sehring)
Date: Sat, 20 Apr 2013 14:29:55 -0700 (PDT)
Subject: [BoatAnchors] RF Grounds - redux
Message-ID: <1366493395.85730.YahooMailNeo@web161004.mail.bf1.yahoo.com>

Hello to All,

Have you ever regretted something you said or wrote just a microsecond after it left you?

Well, I must have been in a rather dickish mood the other day. ?:(

There of course other ways of holding divergent views. ?I should have kept away from my keyboard.

I've been reading the exalted scribes on ye olde list for, what, 18 years on? ?And have learned so very much.

So, if you all could grant me a pass, I'd very much appreciate it!

Deal?

With gravest apologies,
?

--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From knjhanlon at msn.com Sat Apr 20 18:44:27 2013
From: knjhanlon at msn.com (JAMES HANLON)

Date: Sat, 20 Apr 2013 16:44:27 -0600
Subject: [BoatAnchors] Ranger vernier help
Message-ID: <BLU173-W12AD6AE5E495B05946ADA4A0C90@phx.gbl>

I just acquired a "new" Viking Ranger, and the vernier drive for the vfo is not working. The center shaft turns freely, but it does not drive the dial pointer or the shaft connected to the vfo.

Any suggestions? Has anyone replaced this vernier drive with another unit? I do have several National Velvet Vernier mechanisms as used in the type A dial and in BC-375 tuning units.

Thanks,

Jim, W8KGI

From donreaves at gmail.com Sun Apr 21 01:28:49 2013
From: donreaves at gmail.com (Don Reaves)
Date: Sun, 21 Apr 2013 00:28:49 -0500
Subject: [BoatAnchors] Semtech HV diodes
Message-ID: <CAEj02LYzFdG0DA+r5Sy97g6Xn-ACuKnVSuva45qU9gYYUm6reQ@mail.gmail.com>

Back in 1996 listmember Spencer Petri sent me 4 Semtech HV rectifier sticks (sticks?) but the details of that transaction are lost in the mists of time. These turned up while digging around in long ignored drawers looking for something else. They look suitable for a work in progress 2KV power supply project. I cannot find a reference in my paperwork nor online. Perhaps someone knows what these are. High voltage or high current?

SEMTECH SA10971

The assembly is 3 inches long, 1/2 inch wide. 18 gauge or better wire leads.

I measure about 4.75 V drop across the diode. Perhaps 8 diodes in series?

Picture: http://militaryradio.com/Images/semtech_diode.jpg

Don W5OR

From gumbear at pacbell.net Sun Apr 21 01:54:38 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Sat, 20 Apr 2013 22:54:38 -0700
Subject: [BoatAnchors] RFI boondoggle
Message-ID: <000701ce3e54\$ba1c12a0\$4301a8c0@KB6NAX>

A couple of weeks ago one of the fluorescent light fixtures over my garage work bench pooped out. So in a mild panic to get the light back on I thought I'd take the risk and buy a new fangled electronic ballast. That urge came on as a result of not being able to find ancient technology magnetic ballasts in stock at the usual home improvement robbery chains. Boy, was that a mistake. I got the sizzle coming through the music but no steak on my favorite FM station. I can only imagine what that ballast would do to some serious short wave listening. ~25 bucks down the shoot. So I went fishing on the 'bay and found plenty of magnetic ballasts, like vacuum tubes from old stock and snatched up a few. The lights will stay on and so will the FM.

Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

From vilgotch at bigpond.net.au Sun Apr 21 02:45:37 2013
From: vilgotch at bigpond.net.au (Morris Odell)
Date: Sun, 21 Apr 2013 16:45:37 +1000
Subject: [BoatAnchors] RFI boondoggle
In-Reply-To: <000701ce3e54\$ba1c12a0\$4301a8c0@KB6NAX>
References: <000701ce3e54\$ba1c12a0\$4301a8c0@KB6NAX>
Message-ID: <6F3311BB-B49E-4D2B-84F0-7AEAB8537798@bigpond.net.au>

I've had a similar experience with a new fangled LED fluoro tube substitute. Phooey! It's been impossible to buy ordinary light bulbs down here for a few years now, we'll end up pedalling by candellight pretty soon

73,

Morris

On 21/04/2013, at 15:54, "Arden Allen" <gumbear at pacbell.net> wrote:

> A couple of weeks ago one of the fluorescent light fixtures over my garage
> work bench pooped out. So in a mild panic to get the light back on I
> thought I'd take the risk and buy a new fangled electronic ballast. That
> urge came on as a result of not being able to find ancient technology
> magnetic ballasts in stock at the usual home improvement robbery chains.
> Boy, was that a mistake. I got the sizzle coming through the music but no
> steak on my favorite FM station. I can only imagine what that ballast would

> do to some serious short wave listening. ~25 bucks down the shoot. So I
> went fishing on the 'bay and found plenty of magnetic ballasts, like vacuum
> tubes from old stock and snatched up a few. The lights will stay on and so
> will the FM.
>
> Arden Allen
> KB6NAX
>
> Adopt a shelter dog,
> save an innocent life,
> and make a friend forever =:-)
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From wf2u at ws19ops.com Sun Apr 21 07:54:20 2013
From: wf2u at ws19ops.com (Meir WF2U)
Date: Sun, 21 Apr 2013 07:54:20 -0400
Subject: [BoatAnchors] Semtech HV diodes
Message-ID: <6D62FF6A696C4C86BB54D3179A28C241@MBDCONSULTING.LOCAL>

Don,

The rectifier in question is a 500mA average forward current, 2000 V Peak
Reverse Voltage device.

A simple Google search brings up a few pages of info on this rectifier. Here
is one with the specs:

<http://www.nsn-now.com/Indexing/ViewDetail.aspx?QString=5961013209412>

73, Meir WF2U

Landrum, SC

On 4/21/2013 1:28:49 AM, Don Reaves (donreaves at gmail.com) wrote:
> Back in 1996 listmember Spencer Petri sent me 4 Semtech HV rectifier

> sticks
> (stacks?) but the details of that transaction are lost in the mists
> of
> time. These turned up while digging around in long ignored drawers
> looking for something else. They look suitable for a work in progress
> 2KV
> power supply project. I cannot find a reference in my paperwork nor
> online. Perhaps someone knows what these are. High voltage or high
> current?
>
> SEMTECH SA10971
>
> The assembly is 3 inches long, 1/2 inch wide. 18 gauge or better wire
> leads.
>
> I measure about 4.75 V drop across the diode. Perhaps 8 diodes in series?
>
> Picture: http://militaryradio.com/Images/semtech_diode.jpg
>
> Don W50R
>
> -----
> BoatAnchors mailing list

From wa9jml at frontier.com Sun Apr 21 11:46:21 2013
From: wa9jml at frontier.com (Steve Berg)
Date: Sun, 21 Apr 2013 10:46:21 -0500
Subject: [BoatAnchors] Semtech HV diodes
In-Reply-To: <CAEj02LYzFdG0DA+r5Sy97g6Xn-ACuKnVSuva45qU9gYYUm6reQ@mail.gmail.com>
References: <CAEj02LYzFdG0DA+r5Sy97g6Xn-ACuKnVSuva45qU9gYYUm6reQ@mail.gmail.com>
Message-ID: <517409CD.7090207@frontier.com>

I believe these are high voltage diodes. Pete gave me two of them to use in a 2200 volt power supply for a 2 meter amplifier, but as I have not had the time to work on that project, I put them in as a 5R4 replacement in my P&H 6 meter transmitting converter at about 800 volts and they work great. I'll get around to fixing up that amp one of these days...

Steve WA9JML

On 4/21/2013 12:28 AM, Don Reaves wrote:

> Back in 1996 listmember Spencer Petri sent me 4 Semtech HV rectifier sticks
> (stacks?) but the details of that transaction are lost in the mists of
> time. These turned up while digging around in long ignored drawers
> looking for something else. They look suitable for a work in progress 2KV
> power supply project. I cannot find a reference in my paperwork nor

> online. Perhaps someone knows what these are. High voltage or high
> current?
>
> SEMTECH SA10971
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> The assembly is 3 inches long, 1/2 inch wide. 18 gauge or better wire
> leads.
>
> I measure about 4.75 V drop across the diode. Perhaps 8 diodes in series?
>
> Picture: http://militaryradio.com/Images/semtech_diode.jpg
>
> Don W50R
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

From spr at earthlink.net Sun Apr 21 12:26:24 2013
From: spr at earthlink.net (Scott Robinson)
Date: Sun, 21 Apr 2013 09:26:24 -0700
Subject: [BoatAnchors] RFI boondoggle
In-Reply-To: <6F3311BB-B49E-4D2B-84F0-7AEAB8537798@bigpond.net.au>
References: <000701ce3e54\$ba1c12a0\$4301a8c0@KB6NAX>
<6F3311BB-B49E-4D2B-84F0-7AEAB8537798@bigpond.net.au>
Message-ID: <51741330.5010307@earthlink.net>

Folks,

I have a LUXO lamp (light on a jointed swing arm) at my bench with a compact fluorescent in it. I had to turn it off to do low level audio measurements 'cause it radiated loads of 50 KHz.

I replaced it with an LED light, and RF silence is the result.

/scott

On 4/20/13 11:45 PM, Morris Odell wrote:

> I've had a similar experience with a new fangled LED fluoro tube substitute.
Phooey! It's been impossible to buy ordinary light bulbs down here for a few years
now, we'll end up pedalling by candellight pretty soon
>
> 73,
>
> Morris
>

>
>
> On 21/04/2013, at 15:54, "Arden Allen" <gumbear at pacbell.net> wrote:
>
>> A couple of weeks ago one of the flourescent light fixtures over my garage
>> work bench pooped out. So in a mild panic to get the light back on I
>> thought I'd take the risk and buy a new fangled electronic ballast. That
>> urge came on as a result of not being able to find ancient technology
>> magnetic ballasts in stock at the usual home improvement robbery chains.
>> Boy, was that a mistake. I got the sizzle coming through the music but no
>> steak on my favorite FM station. I can only imagine what that ballast would
>> do to some serious short wave listening. ~25 bucks down the shoot. So I
>> went fishing on the 'bay and found plenty of magnetic ballasts, like vacuum
>> tubes from old stock and snatched up a few. The lights will stay on and so
>> will the FM.
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>> Arden Allen
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>> Adopt a shelter dog,
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>> BoatAnchors mailing list
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> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

From donreaves at gmail.com Sun Apr 21 14:02:16 2013
From: donreaves at gmail.com (Don Reaves)
Date: Sun, 21 Apr 2013 13:02:16 -0500
Subject: [BoatAnchors] Semtech HV diodes
In-Reply-To: <517409CD.7090207@frontier.com>
References: <CAEj02LYzFdG0DA+r5Sy97g6Xn-ACuKnVSuva45qU9gYYUm6reQ@mail.gmail.com>
<517409CD.7090207@frontier.com>
Message-ID: <CAEj02LZme9Y1qtvEsJN=10DKNV93w5XUXJctKL32_scEzsv61w@mail.gmail.com>

Thanks, fellows, for the references. For some unknown reason my browser searches just were not turning up good pages and the Semtech site no longer lists these. 20KV, 500ma minimum specs. Excellent.

And good to hear from you Pete, aka Spencer. Thanks again for these magic

silicon sticks. I knew these came from you because there were still in the padded envelope with your return address from 1996. They are indeed made like miniature Hard Arkansas Stones aka novaculite.

I turned up some K2AW HV diode assemblies. These are apparently series strings of 1N5408 diodes in molds with Faston connectors. Handy devices. Although K2AW "Silicon Alley" is no more you can still get 1N5408 diodes (3A 1KV) from Mouser for a few cents each in 100 packs to roll your own HV rectifiers. NTE541 is a modern equivalent replacement for the K2AW devices.

The Semtechs will go in my project, and I'll save the K2AWs for some other projects.

Don W5OR

On Sun, Apr 21, 2013 at 10:46 AM, Steve Berg <wa9jml at frontier.com> wrote:

> I believe these are high voltage diodes. Pete gave me two of them to use
> in a 2200 volt power supply for a 2 meter amplifier, but as I have not had
> the time to work on that project, I put them in as a 5R4 replacement in my
> P&H 6 meter transmitting converter at about 800 volts and they work great.
> I'll get around to fixing up that amp one of these days...
>
> Steve WA9JML
>
>
> On 4/21/2013 12:28 AM, Don Reaves wrote:
>
>> Back in 1996 listmember Spencer Petri sent me 4 Semtech HV rectifier
>> sticks
>> (sticks?) but the details of that transaction are lost in the mists of
>> time. These turned up while digging around in long ignored drawers
>> looking for something else. They look suitable for a work in progress 2KV
>> power supply project. I cannot find a reference in my paperwork nor
>> online. Perhaps someone knows what these are. High voltage or high
>> current?
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>> SEMTECH SA10971
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>> The assembly is 3 inches long, 1/2 inch wide. 18 gauge or better wire
>> leads.
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>> I measure about 4.75 V drop across the diode. Perhaps 8 diodes in series?
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>> Picture: http://militaryradio.com/**Images/semtech_diode.jpg<http://militaryradio.com/Images/semtech_diode.jpg>

```
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>> -----**-----
>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/**mailman/listinfo/boatanchors<https://
minime.theporch.com/mailman/listinfo/boatanchors>
>>
>> -----**-----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/**mailman/listinfo/boatanchors<https://
minime.theporch.com/mailman/listinfo/boatanchors>
>
```

--
--

Don Reaves W5OR WD2XSH/15
8101 Barrett Rd. Roland AR 72135
VOIP landline: 501.420.3661

From 1oldlens1 at ix.netcom.com Sun Apr 21 13:58:48 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Sun, 21 Apr 2013 10:58:48 -0700
Subject: [BoatAnchors] RFI boondoggle
References: <000701ce3e54\$ba1c12a0\$4301a8c0@KB6NAX><6F3311BB-B49E-4D2B-84F0-7AEAB8537798@bigpond.net.au>
<51741330.5010307@earthlink.net>
Message-ID: <EA421CC9340444ACB686B071E378A2A8@VALUED20606295>

----- Original Message -----
From: "Scott Robinson" <spr at earthlink.net>
Cc: "Old Tube Radios (new)"
<boatanchors at minime.theporch.com>
Sent: Sunday, April 21, 2013 9:26 AM
Subject: Re: [BoatAnchors] RFI boondoggle

```
> Folks,
>
> I have a LUxo lamp (light on a jointed swing arm) at my
> bench with a compact fluorescent in it. I had to turn it
> off to do low level audio measurements 'cause it radiated
> loads of 50 KHz.
```

>
> I replaced it with an LED light, and RF silence is the
> result.
>
> /scott
>
> On 4/20/13 11:45 PM, Morris Odell wrote:
>> I've had a similar experience with a new fangled LED
>> fluoro tube substitute. Phooey! It's been impossible to
>> buy ordinary light bulbs down here for a few years now,
>> we'll end up pedalling by candellight pretty soon
>>
>> 73,
>>
>> Morris
>>

I have several light fixtures in my shack. One is an old fashioned goose-neck desk lamp. I have a compact fluorescent lamp in that and can use it when listening. Not in the others. I have tungsten lamps in the two that I need to see when listening. I have not looked at the lamp that is acceptable to see if its a different brand. I can still get tungsten bulbs here but the ones I've been using are part of my old stash. I have not yet tried LED lamps. The efficiency of CF lamps is attractive but seems to come with a bunch of vices that are not.

--

Richard Knoppow
Los Angeles
WB6KBL
dickburk at ix.netcom.com

From gumbear at pacbell.net Sun Apr 21 16:25:14 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Sun, 21 Apr 2013 13:25:14 -0700
Subject: [BoatAnchors] RFI boondoggle
References: <000701ce3e54\$ba1c12a0\$4301a8c0@KB6NAX><6F3311BB-B49E-4D2B-84F0-7AEAB8537798@bigpond.net.au><51741330.5010307@earthlink.net>
<EA421CC9340444ACB686B071E378A2A8@VALUED20606295>
Message-ID: <003401ce3ece\$56f22d20\$4301a8c0@KB6NAX>

> the efficiency of CF lamps is attractive but seems to come with
a bunch of vices that are not.

The main vices being they're difficult to dispose of, expensive to recycle, and not very reliable. They're old technology re-earthed to satisfy the political agendas of the troika of environmentalists, politicians, and profit oriented utilities. The sooner LED's replace them the better, IMO.

Arden Allen
KB6NAX

Properly trained a man can be
dog's best friend. -Corey Ford

From gumbear at pacbell.net Sun Apr 21 16:31:06 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Sun, 21 Apr 2013 13:31:06 -0700
Subject: [BoatAnchors] Semtech HV diodes
References: <CAEj02LYzFdG0DA+r5Sy97g6Xn-ACuKnVSuva45qU9gYYUm6reQ@mail.gmail.com>
<517409CD.7090207@frontier.com>
Message-ID: <001801ce3ecf\$29cee3a0\$4301a8c0@KB6NAX>

There seems to be a conflict regarding the voltage rating of the Semtech diodes in question. My research came up with 20,000 volts (20KV). What's correct?

Average current 500mA, single cycle surge current 50 amps.

Arden Allen
KB6NAX

From nf6x at nf6x.net Sun Apr 21 17:24:55 2013
From: nf6x at nf6x.net (Mark J. Blair)
Date: Sun, 21 Apr 2013 14:24:55 -0700
Subject: [BoatAnchors] RF Grounds - redux
In-Reply-To: <1366493395.85730.YahooMailNeo@web161004.mail.bf1.yahoo.com>
References: <1366493395.85730.YahooMailNeo@web161004.mail.bf1.yahoo.com>
Message-ID: <0263AD69-9D8B-4A72-8353-8B8AD159D2F9@nf6x.net>

On Apr 20, 2013, at 14:29 , John Sehring <wb0eq at yahoo.com> wrote:
> Have you ever regretted something you said or wrote just a microsecond after it left you?

Yes, pretty much daily. :)

--

Mark J. Blair, NF6X <nf6x at nf6x.net>
<http://www.nf6x.net/>

From spr at earthlink.net Sun Apr 21 18:01:20 2013
From: spr at earthlink.net (Scott Robinson)
Date: Sun, 21 Apr 2013 15:01:20 -0700
Subject: [BoatAnchors] RFI boondoggle
In-Reply-To: <003401ce3ece\$56f22d20\$4301a8c0@KB6NAX>
References: <000701ce3e54\$ba1c12a0\$4301a8c0@KB6NAX><6F3311BB-B49E-4D2B-84F0-7AEAB8537798@bigpond.net.au><51741330.5010307@earthlink.net>
<EA421CC9340444ACB686B071E378A2A8@VALUED20606295>
<003401ce3ece\$56f22d20\$4301a8c0@KB6NAX>
Message-ID: <517461B0.6040202@earthlink.net>

Folks,

Global CO2 levels are a real concern. The pace of temperature change is hard to calculate (and is IMHO where the real debate is), but more CO2 without question pushes in the direction of increased temperatures. It's a greenhouse situation, and that's just physics.

People use electric light a lot of hours, so improving the efficiency of electricity to light conversion by a factor of 4 or 5 can have a significant impact on US power consumption. I have no quarrel with that.

CFLs are built down to a really low price, and if you cut costs by leaving out the L and C's that clean up the RF, that's illegal (FCC) but they do it anyway. I don't much like them, either.

For a while I had a small CFL in a reading light that was pretty close to my head. I could smell the hot plastic. Under-rated parts are another cost saver, and reduce reliability.

The LED lights that I like work great but do cost more (\$15 to \$50 each). At that price, they can be built right.

Regards,

Scott

On 4/21/13 1:25 PM, Arden Allen wrote:

>> the efficiency of CFL lamps is attractive but seems to come with
> a bunch of vices that are not.

>
> The main vices being they're difficult to dispose of, expensive to recycle,
> and not very reliable. They're old technology re-earthed to satisfy the
> political agendas of the troika of environmentalists, politicians, and
> profit oriented utilities. The sooner LED's replace them the better, IMO.
>
> Arden Allen
> KB6NAX
>
> Properly trained a man can be
> dog's best friend. -Corey Ford
>
>

From knjhanlon at msn.com Sun Apr 21 20:06:41 2013
From: knjhanlon at msn.com (JAMES HANLON)
Date: Sun, 21 Apr 2013 18:06:41 -0600
Subject: [BoatAnchors] Hammarlund HX-50 problem
Message-ID: <BLU173-W5B174A1ECC62C09EA9566A0CB0@phx.gbl>

Bob,

If I had your HX-50 on my bench with the problem you describe, I would roll my oscilloscope over and start looking at the final amplifier grids to see if there was any signal getting to them. If there was no signal there, I would walk back through the preceeding stages to see where there was signal and where it disappeared. If there was signal there at the final grids, I would then look to the final plate tank to see if the signal appeared there, or conversely across your load.

If you don't have a scope, you need some other kind of measuring instrument that will indicate the presence or absence of "signal." If my scope quit, I would probably put together a "probe" to use with a dc voltmeter. The probe would consist of a handy silicon diode, with a capacitor like a 1000 volt, 0.01 mfd disc ceramic capacitor attached to one end of the diode and a high resistance resistor, maybe a megohm or so, tied between the junction of the diode and the capacitor on one end and to the grounded side of the voltmeter on the other side. The other end of the diode would attach to the hot side of the voltmeter. When you attach the free end of the capacitor to a test point in the transmitter and the grounded side of the voltmeter to the transmitter chassis, a non-zero reading on the dc voltmeter will be an indication of RF at that point. Be VERY CAREFUL of High Voltage when you are attaching the probe to a test point!

Hope this helps. Let us know how things progress.

Jim Hanlon, W8KGI

From brianclarke01 at optusnet.com.au Sun Apr 21 20:05:49 2013
From: brianclarke01 at optusnet.com.au (brianclarke01 at optusnet.com.au)
Date: Mon, 22 Apr 2013 10:05:49 +1000
Subject: [BoatAnchors] RFI boondoggle
In-Reply-To: <517461B0.6040202@earthlink.net>
Message-ID: <44ac70b1c34a35dce97f0c2e43d4ced64f5b626c@webmail.optuszoo.com.au>

Hello folks,

I would be very careful about accepting the IPCC mantra about any alleged causal connection between carbon dioxide and global temperature. When you do a careful, time-related correlation analysis going back many thousands of years, compared with Dr Mann's last two hundred years, you find that temperature rise preceded carbon dioxide rise by, on average, 800 years. So, mere correlation, so beloved of politicians, journalists and others lacking scientific analytic skills, is not enough for causal explanations.

LEDs, like Zener diodes in breakdown or avalanche mode, produce RF emissions. LEDs are not the panacea for CFLs and incandescent lighting. When LEDs are paired with lighting controllers, to reduce size, the controllers use faster and faster rise time pulse modulation. Any kind of pulse has harmonics extending to infinity. Careful design and manufacture are required to attenuate EMI - and this will come out of consumers' pockets.

If you are really concerned about carbon consumption, say on the grounds of finite resource consumption, then look very carefully at the total energy consumed by lighting compared with that of gas-guzzling motor vehicles. If you are still concerned about energy consumed by lighting, consider movement-detection controllers for turning lights on and off. That would sort out the workers from the sit-on-bums.

73 de Brian, VK2GCE

?

----- Original Message -----

From: "Scott Robinson"
To:
Cc: "Old Tube Radios (new)"
Sent: Sun, 21 Apr 2013 15:01:20 -0700
Subject: Re: [BoatAnchors] RFI boondoggle

Folks,

Global CO2 levels are a real concern. The pace of temperature change is hard to calculate (and is IMHO where the real debate is), but more CO2 without question pushes in the direction of increased temperatures. It's a greenhouse situation, and that's just physics.

People use electric light a lot of hours, so improving the efficiency of electricity to light conversion by a factor of 4 or 5 can have a significant impact on US power consumption. I have no quarrel with that.

CFLs are built down to a really low price, and if you cut costs by leaving out the L and C's that clean up the RF, that's illegal (FCC) but they do it anyway I don't much like them, either.

For a while I had a small CFL in a reading light that was pretty close to my head. I could smell the hot plastic. Under-rated parts are another cost saver, and reduce reliability.

The LED lights that I like work great but do cost more (\$15 to \$50 each). At that price, they can be built right.

Regards,

Scott

On 4/21/13 1:25 PM, Arden Allen wrote:

>> the efficiency of CFL lamps is attractive but seems to come with
> a bunch of vices that are not.
>
> The main vices being they're difficult to dispose of, expensive to recycle,
> and not very reliable. They're old technology re-engineered to satisfy the
> political agendas of the troika of environmentalists, politicians, and
> profit oriented utilities. The sooner LED's replace them the better, IMO.
>
> Arden Allen

> KB6NAX
>
> Properly trained a man can be
> dog's best friend. -Corey Ford
>
>

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

Email sent using Optus Webmail

From gumbear at pacbell.net Sun Apr 21 21:20:55 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Sun, 21 Apr 2013 18:20:55 -0700
Subject: [BoatAnchors] RFI boondoggle
References: <44ac70b1c34a35dce97f0c2e43d4ced64f5b626c@webmail.optuszoo.com.au>
Message-ID: <001101ce3ef7\$a6736e30\$4301a8c0@KB6NAX>

I'm not susceptible to fad "science" trends nor am I moved by denier Thomas accusations. One would think if you aggregate all of the data and seek the harmonious trends revealed you might make a useful conclusion. But that gets lost in the media fireworks, the problem with our democratic vibrancies.

Arden Allen
KB6NAX

If you get to thinking you're a person of
some influence, try ordering somebody
else's dog around. -Will Rogers

> I would be very careful about accepting the IPCC mantra about any
alleged causal connection between carbon dioxide and global
temperature. When you do a careful, time-related correlation analysis
going back many thousands of years, compared with Dr Mann's last two
hundred years, you find that temperature rise preceded carbon dioxide
rise by, on average, 800 years. So, mere correlation, so beloved of
politicians, journalists and others lacking scientific analytic
skills, is not enough for causal explanations.

From ddillman at igc.org Mon Apr 22 17:05:25 2013
From: ddillman at igc.org (Richard Dillman)

Date: Mon, 22 Apr 2013 14:05:25 -0700 (GMT-07:00)
Subject: [BoatAnchors] 51J-4 Service Recommendation?
Message-ID: <16251564.1366664725184.JavaMail.root@elwamui-karabash.atl.sa.earthlink.net>

Who does the boatanchor brain trust recommend to service my good and working 51J-4 that needs some cleaning and alignment work?

RD

=====
Richard Dillman, WPE2VT
Chief Operator, Coast Station KSM
Maritime Radio Historical Society
<http://www.radiomarine.org>
=====

From wb3fau55 at neo.rr.com Tue Apr 23 04:46:58 2013
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Tue, 23 Apr 2013 4:46:58 -0400
Subject: [BoatAnchors] 51J-4 Service Recommendation?
In-Reply-To: <16251564.1366664725184.JavaMail.root@elwamui-karabash.atl.sa.earthlink.net>
Message-ID: <20130423084658.Y0HJM.88269.root@cdptpa-web35-z01>

Well Rich, how about doing it yourself with advice from the "brain-trust"?
Russ.

---- Richard Dillman <ddillman at igc.org> wrote:

>
> Who does the boatanchor brain trust recommend to service my good and working
51J-4 that needs some cleaning and alignment work?
>
> RD
>
>
> =====
> Richard Dillman, WPE2VT
> Chief Operator, Coast Station KSM
> Maritime Radio Historical Society
> <http://www.radiomarine.org>
> =====
> _____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From pulsarxp at embarqmail.com Tue Apr 23 13:13:56 2013
From: pulsarxp at embarqmail.com (L L bahr)
Date: Tue, 23 Apr 2013 13:13:56 -0400 (EDT)
Subject: [BoatAnchors] WANTED: Globe Scout 65 Tuning Capacitor
In-Reply-To: <20130423084658.Y0HJM.88269.root@cdptpa-web35-z01>
Message-ID: <674114004.268163.1366737236556.JavaMail.root@md35.embarq.synacor.com>

I have a really nice WRL Globe Scout 65 I want to get on the air. My problem is one of the two variable capacitors is ruined. (Both the plate tuning and loading capacitor are the same. That is, they are 365 pf. The two mounting tapped holes are on either side of the tuning shaft but lower and not directly across from the tuning shaft).

Does anyone on here have a junker Globe Scout who could sell me one of the variable caps? (I think all the Globe Scouts used the same capacitors, so I don't think it has to come from a 65 version).

Thanks,

Lee, w0vt
pulsarxp at embarqmail.com

From 1oldlens1 at ix.netcom.com Tue Apr 23 14:44:33 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Tue, 23 Apr 2013 11:44:33 -0700
Subject: [BoatAnchors] WANTED: Globe Scout 65 Tuning Capacitor
References: <674114004.268163.1366737236556.JavaMail.root@md35.embarq.synacor.com>
Message-ID: <ADBCDB9FAD0D4BFEA7853AEA2ECFAF6D@VALUED20606295>

What happened to the cap, are you sure it can't be repaired?

--

Richard Knoppow
Los Angeles
WB6KBL

dickburk at ix.netcom.com

----- Original Message -----

From: "L L bahr" <pulsarxp at embarqmail.com>
To: <boatanchors at theporch.com>
Sent: Tuesday, April 23, 2013 10:13 AM
Subject: [BoatAnchors] WANTED: Globe Scout 65 Tuning

Capacitor

>I have a really nice WRL Globe Scout 65 I want to get on
>the air. My problem is one of the two variable capacitors
>is ruined. (Both the plate tuning and loading capacitor
>are the same. That is, they are 365 pf. The two mounting
>tapped holes are on either side of the tuning shaft but
>lower and not directly across from the tuning shaft).
>
> Does anyone on here have a junker Globe Scout who could
> sell me one of the variable caps? (I think all the Globe
> Scouts used the same capacitors, so I don't think it has
> to come from a 65 version).
>
> Thanks,
>
> Lee, w0vt
> pulsarxp at embarqmail.com
> -----
>

From knjhanlon at msn.com Tue Apr 23 15:26:24 2013
From: knjhanlon at msn.com (JAMES HANLON)
Date: Tue, 23 Apr 2013 13:26:24 -0600
Subject: [BoatAnchors] 51J-4 Service Recommendation?
Message-ID: <BLU173-W259D12B1B0389D51A28394A0B40@phx.gbl>

Richard,

There are several folks who advertise service in the Electric Radio Magazine
Classified Ads.

Chuck Felton, KD0ZS, Felton Electronic Design, 1115 S. Greeley Hwy, Cheyenne, WY
82007, 307-634-5858, feltondesign at yahoo.com

Barney Wooters, W5KSO, 8303 E. Mansfield Ave, Denver, CO 80237, 303-770-5314

West Coast Service Pro (FCC Commercial License), Larry W6WUH, 707-874-1000, CaptL
at Sonic.net

Tom Senne, AC8DA, 937-258-0124, Dayton, Ohio, <http://TomsAntiqueRadioRepair.com>

Land Air Communications, 718-847-3090

Jim Whartenby, antqradio at sbcglobal.net, 501-282-2991

I have no personal experience with anyof them. I'm my own service man.

73,

Jim Hanlon, W8KGI

From dmetz at ntelos.net Wed Apr 24 07:55:40 2013
From: dmetz at ntelos.net (Dave or Debbie Metz)
Date: Wed, 24 Apr 2013 07:55:40 -0400
Subject: [BoatAnchors] RFI another source of problems
Message-ID: <5177C83C.3000203@ntelos.net>

This past weekend, I was up at my son in law who is a ham in the western burbs of Boston. A couple of months ago he started experiencing some high levels of rfi on his radios that were never there in the past. I went out searching with the car radio on the am band and seemed to come up short as far as a search. By accident, I pulled up to his garage door and started to shut off the car. All of a sudden, a very large noise on the radio! HMMMMMM, not much in there that was on. In fact the only thing was the garage door opener. Pulled the plugs and the noise was gone! This noise was for the entire spectrum from roughly 7MHZ to 30. Thinking about it, he put in new GENIE door openers at the time the noise started but never got the connection. Go figure that one! So, I post this in the hope that if someone has a new GENIE door opener, be aware that as a noise generator, its really good!

I assumed to try to eliminate it would void the warranty, be nearly impossible anyway, so we just put in a switch to turn them off which as a security measure, is a good idea anyway.

Dave
KJ4JX

--

Dave Metz cell 540 292 8864
Debbie Metz cell 540 290 1614
Home: 540 885 7914
Realtor email: metzrealtors at gmail dot com

From oldradio at comcast.net Wed Apr 24 08:21:22 2013
From: oldradio at comcast.net (oldradio at comcast.net)
Date: Wed, 24 Apr 2013 12:21:22 +0000 (UTC)
Subject: [BoatAnchors] RFI another source of problems
In-Reply-To: <5177C83C.3000203@ntelos.net>
Message-ID:

<1071455094.507819.1366806082145.JavaMail.root@sz0213a.westchester.pa.mail.comcast.net>

Thanks Dave for the tip.

73, John Dilks, K2TQN

-.-

----- Original Message -----

From: "Dave or Debbie Metz" <dmetz at ntelos.net>

To: BoatAnchors at theporch.com

Sent: Wednesday, April 24, 2013 7:55:40 AM

Subject: [BoatAnchors] RFI another source of problems

This past weekend, I was up at my son in law who is a ham in the western burbs of Boston. A couple of months ago he started experiencing some high levels of rfi on his radios that were never there in the past. I went out searching with the car radio on the am band and seemed to come up short as far as a search. By accident, I pulled up to his garage door and started to shut off the car. All of a sudden, a very large noise on the radio! Hmmmmmm, not much in there that was on. In fact the only thing was the garage door opener. Pulled the plugs and the noise was gone! This noise was for the entire spectrum from roughly 7MHZ to 30. Thinking about it, he put in new GENIE door openers at the time the noise started but never got the connection. Go figure that one! So, I post this in the hope that if someone has a new GENIE door opener, be aware that as a noise generator, its really good!

I assumed to try to eliminate it would void the warranty, be nearly impossible anyway, so we just put in a switch to turn them off which as a security measure, is a good idea anyway.

Dave
KJ4JX

--

Dave Metz cell 540 292 8864

Debbie Metz cell 540 290 1614

Home: 540 885 7914

Realtor email: metzrealtors at gmail dot com

BoatAnchors mailing list

BoatAnchors at theporch.com

<https://minime.theporch.com/mailman/listinfo/boatanchors>

From arc5 at ix.netcom.com Wed Apr 24 10:23:03 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Wed, 24 Apr 2013 09:23:03 -0500
Subject: [BoatAnchors] BC-348 Backlash Suggestions
Message-ID: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>

Been reviving a BC-348 for a friend.
It had a "doofuss-try" I hadn't seen before-
someone rotated the bandswitches 180 degrees.
Didn't know you could even do that.

After this and lots of other work, it's playing well
and is one of the best sounding 348s I've ever done.
Even the crystal filter works well.
One common problem remains- tuning backlash.

The three major contributors to backlash in a 348
are the tuning capacitor gear, the worm wheel and
the worm shaft. Here is a photo:

<http://home.netcom.com/~arc5/348gears.jpg>

First, make sure all the gears are clean and lubed.
Put some drops of GOOD penetrating oil
on the edges of each gear and let them sit.
Do this until the two halves of the gears
move freely. You can test this with a small
screwdriver inserted between two edge teeth.
Mesh the teeth and they should spring back.

The gear on the end of the cap is not too tough
and that's good, since it's usually the big baddie.
Just takes patience and practice. Close the cap all
the way and make sure this coincides with the end
stop on the tuning knob. Loosen the two screws on
the gear end, but don't remove them. You want to be
able to disengage the gear from the pinion, but just barely.
This is best done at a 45-degree angle toward the front.
I use a pair of hemostats to engage both sides of the
gear and well-compress the spring.
Then, making sure the tuning knob is still on the stop
and the capacitor is still fully meshed,
re-engage the gear and tighten the cap back down.

The parts where I could use suggestions.
The worm gear wheel also needs to be retensioned,

but the assembly is pinned together and the ends of the pins "boogered-up" so you can't drive them out without damaging the whole assembly.

I can't disengage the worm gear wheel to retension it like the cap gear, nor can I remove the worm gear shaft, as it is also pinned.

In the past, I've used hemostats to removed one of the worm wheel springs, stretch it out, try to put it back, cursed at the 27th try, then watched the spring "sproing-ing-ing" off into oblivion, found another spring in the junkbox, stretched it too much so that, once I did get it on, it stuck -out the sides of the gear etc. etc.

And then there's the worm gear shaft- this problem is nasty and is also common on later production 348s. The worm shaft slops "in and out" towards the back and front. Common symptom is "wobble-wobble" while tuning that is most pronouced on the higher bands. The shaft has a wimpy leaf spring under the worm and a felt pad under the tuning knob that help some, but it's no cure. I cannot remove the worm to add a washer or bearings under it. Only someone with an advanced machine shop should attempt it since you will absolutely wreck the thing if you try to hammer and whack the pins out. So I'm looking for suggestions on how to address the slop in these two gears.

How about a couple of snap-rings under the worm shaft?

TNX ES 73 DE Dave AB5S

From k1lky at earthlink.net Wed Apr 24 13:59:50 2013
From: k1lky at earthlink.net (Roy Morgan)
Date: Wed, 24 Apr 2013 13:59:50 -0400
Subject: [BoatAnchors] BC-348 Backlash Suggestions
In-Reply-To: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
Message-ID: <7EF21223-DD7A-4EF1-B34E-FA78C620623D@earthlink.net>

On Apr 24, 2013, at 10:23 AM, David Stinson wrote:
> ... Even the crystal filter works well.

Dave,

Remind me; is the crystal a little rectangular thing, wax coated maybe, with wire leads and soldered to the function switch? I just ran into such a thing in my Stash of Junque and Treasures and was not sure what radio it came from. It rattles slightly, but that's not unusual.

> One common problem remains- tuning backlash.

On making a pin-pusher-out: Maybe a small C clamp can be modified: grind or force off the little swivel cap on the end of the screw that normally contacts the work. Grind the screw flat and the drill its end to accept a bit of piano wire or drill rod just smaller than the pin to be removed.

A slot filed across the flat fixed part of the C that you'll be pushing against would help it all keep aligned. and a bigger hole in the center will let the pin get started out of the shaft. Many C clamps are made of malleable iron or steel and so filing it should go easily.

It's possible that one or more bits meant for hex screws from a driver set would work well -or the smallest torx bit, maybe ground down on a wheel.

McMaster Carr should have replacement pins if you want to put new ones in. (The world of clock repair uses tapered pins - they come in brass and steel, but the taper may lead to trouble in the radio.)

> How about a couple of snap-rings under the worm shaft?

Seems like the original design would not depend on felt to keep the worm from moving in and out. I've seen trouble in a URM-25D if the rear shaft single bearing mount is not "just right" tight - pushing and pulling on the tuning knob would cause shift in the oscillator frequency.

Of course, after all these ideas, it may well be that you don't have to un-pin any shaft to get the thing well cleaned. For example, a bunch of paper towels stuffed under the in-place mechanism might let you drop brake cleaner into the bearings with an eye dropper with little mess.

Roy

Roy Morgan

k1lky at earthlink.net
K1LKY Since 1958 - Keep 'em Glowing!

From rbsingl at ilstu.edu Wed Apr 24 15:16:25 2013
From: rbsingl at ilstu.edu (Singley, Rodger)
Date: Wed, 24 Apr 2013 19:16:25 +0000
Subject: [BoatAnchors] FW: Ranger vernier help
Message-ID: <0DEBF1C8D8437248BE53CD4213B89BD322EE5184@ISUEMBX02.ad.ilstu.edu>

Jim,

I sent the below to you direct instead of via the list and I found out later some of the ISP spam blockers were blocking email from several .edu domains. I am forwarding to the entire list in case it didn't make it and I hope this proves helpful.

73, Rodger WQ9E

-----Original Message-----

From: Singley, Rodger
Sent: Saturday, April 20, 2013 7:31 PM
To: 'JAMES HANLON'
Subject: RE: [BoatAnchors] Ranger vernier help

Jim,

That is a ball reduction drive and unless it is severely worn (and I have never seen one seriously worn in a Johnson rig) you can take it apart, clean out the old grease, repack it with new grease, and set the proper load on the bearings to restore it to like new operation.

Remove the ball reduction unit and disassemble it by unscrewing the front and rear of the unit. There will be 3 (maybe 4) ball bearings in the side and there is usually one more thrust bearing in the rear however my Navigator had this ball cast as part of the shaft. Disassemble over a cup in case the bearings fall out but they are standard size units available at any bearing house. I use cotton tips to remove most of the old grease then soak it for 10 minutes in a solvent (WD-40 works well for this), clean with another cotton tip and wipe the shaft, housing, and bearings with a clean paper towel. I use synthetic bearing grease to repack it, the grease will help hold the bearings in place as you slide the center shaft back in place. The only "trick" is to set the proper tension when screwing the two case halves back together. You want enough load to avoid slippage under normal load but not so much that the tuning is stiff.

I have gone through this process for all of my Johnson gear with this type of VFO drive (Navigator, Ranger 1 and 2, a couple of Valiant 1 and 2, Pacemaker, and a 500) and this provides very smooth tuning. You don't generally see Johnson gear slipping this badly like the similar drive on some RME receivers but it usually has a very "crunchy" feel with some slipping spots.

Rodger WQ9E

Dr. Rodger B. Singley
Professor of Marketing

-----Original Message-----

From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of JAMES HANLON
Sent: Saturday, April 20, 2013 5:44 PM
To: boatanchors
Subject: [BoatAnchors] Ranger vernier help

I just acquired a "new" Viking Ranger, and the vernier drive for the vfo is not working. The center shaft turns freely, but it does not drive the dial pointer or the shaft connected to the vfo.

Any suggestions? Has anyone replaced this vernier drive with another unit? I do have several National Velvet Vernier mechanisms as used in the type A dial and in BC-375 tuning units.

Thanks,

Jim, W8KGI

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From 1oldlens1 at ix.netcom.com Wed Apr 24 15:24:05 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Wed, 24 Apr 2013 12:24:05 -0700
Subject: [BoatAnchors] [Boatanchors] BC-348 Backlash Suggestions
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
Message-ID: <B2133D6D5E1946E0893EA3B661AFACB2@VALUED20606295>

I can't tell from the photo how the worm shaft is fastened at the knob end. It looks as though there is a spring washer between the gear and the chassis, is this the

case? If so there must be something for it to work against. I would expect something like a C clip at the knob end. Perhaps if its missing it would account for the backlash.

BTW, is this backlash or play, they are different. Backlash is when you turn a control to a certain position and it moves back the other way slightly. Play is where there is a gap between movement in one direction and moving the other way. Where there is play but no backlash the control may be difficult to adjust precisely but does not move after adjusting. Most of the so-called anti-backlash arrangements of gears is really to eliminate play.

As far as tensioning the anti-backlash (might as well use that term) gears, perhaps the bearing is just stiff. In general springs don't get weaker simply from being compressed or extended unless they are stretched so far as to exceed the elastic limit of the material. What does weaken springs is use; they suffer from metal fatigue and loose their springiness. I would investigate the bearing where the anti-backlash gear turns on the driven gear to see if its free. That may be difficult where one can't easily remove or disengage the gear. Its possible some penetrating oil may help without having to disassemble the gear.

--

Richard Knoppow
Los Angeles
WB6KBL
dickburk at ix.netcom.com

----- Original Message -----

From: "David Stinson" <arc5 at ix.netcom.com>
To: "ARC-5 List" <arc5 at mailman.qth.net>;
<milsurplus at mailman.qth.net>; <boatanchors at theporch.com>;
<boatanchors at mailman.qth.net>
Sent: Wednesday, April 24, 2013 7:23 AM
Subject: [Boatanchors] BC-348 Backlash Suggestions

> Been reviving a BC-348 for a friend. It had a
> "doofuss-try" I hadn't seen before- someone rotated the
> bandswitches 180 degrees. Didn't know you could even do
> that.
>
> After this and lots of other work, it's playing well
> and is one of the best sounding 348s I've ever done. Even
> the crystal filter works well.

> One common problem remains- tuning backlash.
>
> The three major contributors to backlash in a 348 are the
> tuning capacitor gear, the worm wheel and
> the worm shaft. Here is a photo:
>
> <http://home.netcom.com/~arc5/348gears.jpg>
>
> First, make sure all the gears are clean and lubed.
> Put some drops of GOOD penetrating oil on the edges of
> each gear and let them sit.
> Do this until the two halves of the gears move freely.
> You can test this with a small
> screwdriver inserted between two edge teeth.
> Mesh the teeth and they should spring back.
>
> The gear on the end of the cap is not too tough
> and that's good, since it's usually the big baddie.
> Just takes patience and practice. Close the cap all the
> way and make sure this coincides with the end
> stop on the tuning knob. Loosen the two screws on
> the gear end, but don't remove them. You want to be able
> to disengage the gear from the pinion, but just barely.
> This is best done at a 45-degree angle toward the front.
> I use a pair of hemostats to engage both sides of the gear
> and well-compress the spring. Then, making sure the
> tuning knob is still on the stop and the capacitor is
> still fully meshed, re-engage the gear and tighten the
> cap back down.
>
> The parts where I could use suggestions.
> The worm gear wheel also needs to be retensioned, but the
> assembly is pinned together and the ends of the pins
> "boogered-up" so you can't drive them out
> without damaging the whole assembly.
>
> I can't disengage the worm gear wheel to retension it like
> the cap gear, nor can I remove the worm gear shaft, as it
> is also pinned.
> In the past, I've used hemostats to removed one of the
> worm wheel springs, stretch it out, try to put it back,
> cursed at the 27th try, then watched the spring
> "sproing-ing-ing" off into oblivion,
> found another spring in the junkbox, stretched it too much
> so that, once I did get it on,
> it stuck -out the sides of the gear etc. etc.
>
> And then there's the worm gear shaft- this problem is

> nasty and is also common on later production 348s. The
> worm shaft slops "in and out" towards the back and front.
> Common symptom is "wobble-wobble" while tuning
> that is most pronounced on the higher bands.
> The shaft has a wimpy leaf spring under the worm
> and a felt pad under the tuning knob that help some,
> but it's no cure.
> I cannot remove the worm to add a washer or bearings
> under it. Only someone with an advanced machine shop
> should attempt it since you will absolutely wreck the
> thing if you try to hammer and whack the pins out.
> So I'm looking for suggestions on how to address
> the slop in these two gears.
>
> How about a couple of snap-rings under the worm shaft?
>
> TNX ES 73 DE Dave AB5S
>

From k4oah at mindspring.com Wed Apr 24 15:34:59 2013
From: k4oah at mindspring.com (Garey Barrell)
Date: Wed, 24 Apr 2013 15:34:59 -0400
Subject: [BoatAnchors] FW: Ranger vernier help
In-Reply-To: <0DEBF1C8D8437248BE53CD4213B89BD322EE5184@ISUEMBX02.ad.ilstu.edu>
References: <0DEBF1C8D8437248BE53CD4213B89BD322EE5184@ISUEMBX02.ad.ilstu.edu>
Message-ID: <517833E3.3040305@mindspring.com>

One caveat.... Do NOT allow the vernier to 'hang' with the front panel removed. This WILL break the 'unique' flexible shaft coupler behind it, unique in that one side is for a 1/4" dia shaft, and the other is for a 3/16" dia shaft. Not a stock item at your local Radio Shack!.

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Singley, Rodger wrote:

> Jim,
>
> I sent the below to you direct instead of via the list and I found out later some of the ISP spam blockers were blocking email from several .edu domains. I am forwarding to the entire list in case it didn't make it and I hope this proves helpful.

>
> 73, Rodger WQ9E
>
>
> -----Original Message-----
> From: Singley, Rodger
> Sent: Saturday, April 20, 2013 7:31 PM
> To: 'JAMES HANLON'
> Subject: RE: [BoatAnchors] Ranger vernier help
>
> Jim,
>
> That is a ball reduction drive and unless it is severely worn (and I have never
seen one seriously worn in a Johnson rig) you can take it apart, clean out the old
grease, repack it with new grease, and set the proper load on the bearings to
restore it to like new operation.
>
> Remove the ball reduction unit and disassemble it by unscrewing the front and
rear of the unit. There will be 3 (maybe 4) ball bearings in the side and there
is usually one more thrust bearing in the rear however my Navigator had this ball
cast as part of the shaft. Disassemble over a cup in case the bearings fall out
but they are standard size units available at any bearing house. I use cotton
tips to remove most of the old grease then soak it for 10 minutes in a solvent
(WD-40 works well for this), clean with another cotton tip and wipe the shaft,
housing, and bearings with a clean paper towel. I use synthetic bearing grease to
repack it, the grease will help hold the bearings in place as you slide the center
shaft back in place. The only "trick" is to set the proper tension when screwing
the two case halves back together. You want enough load to avoid slippage under
normal load but not so much that the tuning is stiff.
>
> I have gone through this process for all of my Johnson gear with this type of
VFO drive (Navigator, Ranger 1 and 2, a couple of Valiant 1 and 2, Pacemaker, and
a 500) and this provides very smooth tuning. You don't generally see Johnson gear
slipping this badly like the similar drive on some RME receivers but it usually
has a very "crunchy" feel with some slipping spots.
>
> Rodger WQ9E
>
> Dr. Rodger B. Singley
> Professor of Marketing
>
>
>
> -----Original Message-----
> From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of
JAMES HANLON
> Sent: Saturday, April 20, 2013 5:44 PM
> To: boatanchors

> Subject: [BoatAnchors] Ranger vernier help
>
> I just acquired a "new" Viking Ranger, and the vernier drive for the vfo is not working. The center shaft turns freely, but it does not drive the dial pointer or the shaft connected to the vfo.
>
> Any suggestions? Has anyone replaced this vernier drive with another unit? I do have several National Velvet Vernier mechanisms as used in the type A dial and in BC-375 tuning units.
>
> Thanks,
>
> Jim, W8KGI
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

From rbsingl at ilstu.edu Wed Apr 24 15:47:58 2013
From: rbsingl at ilstu.edu (Singley, Rodger)
Date: Wed, 24 Apr 2013 19:47:58 +0000
Subject: [BoatAnchors] FW: Ranger vernier help
In-Reply-To: <517833E3.3040305@mindspring.com>
References: <0DEBF1C8D8437248BE53CD4213B89BD322EE5184@ISUEMBX02.ad.ilstu.edu>
<517833E3.3040305@mindspring.com>
Message-ID: <0DEBF1C8D8437248BE53CD4213B89BD322EE51AC@ISUEMBX02.ad.ilstu.edu>

Absolutely right and great advice! The Valiant/Valiant II transmitter weight will often break one if it is turned upside down on the bench unless the setscrews for the coupler have been loosened. I learned this the hard way and had to repair the one in my first Valiant.

Rodger WQ9E

Dr. Rodger B. Singley
Professor of Marketing

-----Original Message-----

From: Garey Barrell [mailto:k4oah at mindspring.com]
Sent: Wednesday, April 24, 2013 2:35 PM
To: Singley, Rodger; Boatanchors
Subject: Re: [BoatAnchors] FW: Ranger vernier help

One caveat.... Do NOT allow the vernier to 'hang' with the front panel removed. This WILL break the 'unique' flexible shaft coupler behind it, unique in that one side is for a 1/4" dia shaft, and the other is for a 3/16" dia shaft. Not a stock item at your local Radio Shack!.

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
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<www.k4oah.com>

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>

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>

> 73, Rodger WQ9E

>

>

> -----Original Message-----

> From: Singley, Rodger

> Sent: Saturday, April 20, 2013 7:31 PM

> To: 'JAMES HANLON'

> Subject: RE: [BoatAnchors] Ranger vernier help

>

> Jim,

>

> That is a ball reduction drive and unless it is severely worn (and I have never seen one seriously worn in a Johnson rig) you can take it apart, clean out the old grease, repack it with new grease, and set the proper load on the bearings to restore it to like new operation.

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> Remove the ball reduction unit and disassemble it by unscrewing the front and rear of the unit. There will be 3 (maybe 4) ball bearings in the side and there is usually one more thrust bearing in the rear however my Navigator had this ball cast as part of the shaft. Disassemble over a cup in case the bearings fall out but they are standard size units available at any bearing house. I use cotton tips to remove most of the old grease then soak it for 10 minutes in a solvent (WD-40 works well for this), clean with another cotton tip and wipe the shaft,

housing, and bearings with a clean paper towel. I use synthetic bearing grease to repack it, the grease will help hold the bearings in place as you slide the center shaft back in place. The only "trick" is to set the proper tension when screwing the two case halves back together. You want enough load to avoid slippage under normal load but not so much that the tuning is stiff.

>

> I have gone through this process for all of my Johnson gear with this type of VFO drive (Navigator, Ranger 1 and 2, a couple of Valiant 1 and 2, Pacemaker, and a 500) and this provides very smooth tuning. You don't generally see Johnson gear slipping this badly like the similar drive on some RME receivers but it usually has a very "crunchy" feel with some slipping spots.

>

> Rodger WQ9E

>

> Dr. Rodger B. Singley

> Professor of Marketing

>

>

>

> -----Original Message-----

> From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf

> Of JAMES HANLON

> Sent: Saturday, April 20, 2013 5:44 PM

> To: boatanchors

> Subject: [BoatAnchors] Ranger vernier help

>

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>

> Any suggestions? Has anyone replaced this vernier drive with another unit? I do have several National Velvet Vernier mechanisms as used in the type A dial and in BC-375 tuning units.

>

> Thanks,

>

> Jim, W8KGI

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

>

From gumbear at pacbell.net Wed Apr 24 16:04:08 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 24 Apr 2013 13:04:08 -0700
Subject: [BoatAnchors] BC-348 Backlash Suggestions
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
Message-ID: <002501ce4126\$e7197110\$4301a8c0@KB6NAX>

> Been reviving a BC-348.....

To remove the "boogered-up" pin you might try grinding out the end(s) with a Dremel grinding bit. You'll probably need to fabricate a replacement pin that you can "booger" up the ends with epoxy. Use a good quality nail, sand its diamenter down to a friction fit.

Avoid the tragic loss of a "sproing-ing-ing" event by lassoing the spring with a length of carpet thread or small size dental floss and tying the far end to something that won't move when the spring goes flying.

You can make shims out of brass shim stock. Cut out two horse shoe shaped shims, install lapped over each other and solder together to keep in place.

Just suggestions. Ooooooooooooooooooooooooooooooooooooo of these days I'll do my 348.

Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

From gumbear at pacbell.net Wed Apr 24 15:33:08 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 24 Apr 2013 12:33:08 -0700
Subject: [BoatAnchors] RFI another source of problems
References: <5177C83C.3000203@ntelos.net>
Message-ID: <002401ce4126\$e6a3cbe0\$4301a8c0@KB6NAX>

> All of a sudden, a very large
noise on the radio! Hmmmmmm, not much in there that was on. In fact the only thing was the garage door opener. Pulled the plugs and the noise was gone! This noise was for the entire spectrum from roughly 7MHZ to 30. Thinking about it, he put in new GENIE door openers at the time the noise started but never got the connection. Go figure that one!

.....

If that happened to me Genie would certainly hear from me and have to do something to eliminate the noise or give me my money back. }:-(

Arden Allen
KB6NAX

Twain

Stupidity is far more dangerous than evil,
for evil takes a break from time to time,
stupidity does not. - Anatole France

From w5sum at comcast.net Wed Apr 24 16:24:58 2013
From: w5sum at comcast.net (Ronnie Hull)
Date: Wed, 24 Apr 2013 15:24:58 -0500
Subject: [BoatAnchors] FW: Ranger vernier help
In-Reply-To: <517833E3.3040305@mindspring.com>
References: <0DEBF1C8D8437248BE53CD4213B89BD322EE5184@ISUEMBX02.ad.ilstu.edu>
<517833E3.3040305@mindspring.com>
Message-ID: <7ACC12BA-4ECA-45B8-9A66-919057E43A7C@comcast.net>

I have successfully punched out a replacement to repair mine after I broke the one in my ranger!

Sent from Ronnie's iPhone

On Apr 24, 2013, at 2:34 PM, Garey Barrell <k4oah at mindspring.com> wrote:

> One caveat.... Do NOT allow the vernier to 'hang' with the front panel removed. This WILL break the 'unique' flexible shaft coupler behind it, unique in that one side is for a 1/4" dia shaft, and the other is for a 3/16" dia shaft. Not a stock item at your local Radio Shack!.

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> 73, Garey - K4OAH

> Glen Allen, VA

>

> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

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>> -----Original Message-----

>> From: Singley, Rodger

>> Sent: Saturday, April 20, 2013 7:31 PM

>> To: 'JAMES HANLON'

>> Subject: RE: [BoatAnchors] Ranger vernier help

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>>

>> Rodger WQ9E

>>

>> Dr. Rodger B. Singley

>> Professor of Marketing

>>

>>

>>

>> -----Original Message-----

>> From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of

JAMES HANLON

>> Sent: Saturday, April 20, 2013 5:44 PM

>> To: boatanchors

>> Subject: [BoatAnchors] Ranger vernier help

>>

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>> Jim, W8KGI

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>> BoatAnchors mailing list

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>

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> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Wed Apr 24 16:27:42 2013

From: gumbear at pacbell.net (Arden Allen)

Date: Wed, 24 Apr 2013 13:27:42 -0700

Subject: [BoatAnchors] [Boatanchors] BC-348 Backlash Suggestions

References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>

<B2133D6D5E1946E0893EA3B661AFACB2@VALUED20606295>

Message-ID: <004a01ce412b\$c91886b0\$4301a8c0@KB6NAX>

> Most of the so-called anti-backlash
arrangements of gears is really to eliminate play.

To put a fine a nit-picky point on it: When the grease has dried to the point of plasticity the anti-play function may become the source of backlash. Slow backlash may be experienced as drift over time due to the hardened grease flowing as it warms up. Adding oil replaces the volatile components the grease lost as it dried out, it may be overkill to try to remove the old grease and replace with new, particularly if disassembling the mechanism is risky or difficult.

Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

From nf6x at nf6x.net Wed Apr 24 17:34:16 2013
From: nf6x at nf6x.net (Mark J. Blair)
Date: Wed, 24 Apr 2013 14:34:16 -0700
Subject: [BoatAnchors] BC-348 Backlash Suggestions
In-Reply-To: <7EF21223-DD7A-4EF1-B34E-FA78C620623D@earthlink.net>
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
<7EF21223-DD7A-4EF1-B34E-FA78C620623D@earthlink.net>
Message-ID: <C947E5CC-0CE3-4191-AFFA-5DCB2ADEC9E9@nf6x.net>

On Apr 24, 2013, at 10:59 , Roy Morgan <k1lky at earthlink.net> wrote:
> McMaster Carr should have replacement pins if you want to put new ones in. (The world of clock repair uses tapered pins - they come in brass and steel, but the taper may lead to trouble in the radio.)

If the pin is tapered, then McMaster-Carr also carries taper reamers to match the tapered pins. I don't know off the top of my head how small their stock goes, but I've used both tapered pins and the matching reamer from them before on another project (something much newer that goes "bang"). I agree that getting the old pins out without damaging stuff may be challenging, and may require just the right tools and touch to do successfully.

> Seems like the original design would not depend on felt to keep the worm from moving in and out. I've seen trouble in a URM-25D if the rear shaft single bearing mount is not "just right" tight - pushing and pulling on the tuning knob would cause shift in the oscillator frequency.

If it needs replacement (or added) wavy spring washers to take up axial play in any shafts, then that's another kind of hardware that our friends at McMaster-Carr may be able to supply.

I have an LM frequency meter that works nicely except that the tuning knob gets terribly coggy when making small adjustments. I haven't dug into its mechanical parts yet, so I don't know whether it's a ball bearing, ball reduction drive, etc. that's causing the problem. I hope it's something that I'll be able to easily repair or replace, such as an off-the-shelf bearing.

--

Mark J. Blair, NF6X <nf6x at nf6x.net>
<http://www.nf6x.net/>

From ae4r at cox.net Wed Apr 24 23:20:46 2013
From: ae4r at cox.net (Mike Steussy)
Date: Wed, 24 Apr 2013 23:20:46 -0400
Subject: [BoatAnchors] WANTED: Globe Scout 65 Tuning Capacitor
Message-ID: <5178A10E.40505@cox.net>

Ahoy, Lee! Check this supplier. I just found him on the web and have never ordered anything from him before. I have a GS 680A and it uses the same air variables yours does.

<http://peeblesoriginals.com/catalog/15.php>

Good luck and 73,
Mike Steussy AE4R

From arc5 at ix.netcom.com Thu Apr 25 07:35:03 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Thu, 25 Apr 2013 06:35:03 -0500
Subject: [BoatAnchors] BC-348 Backlash Suggestions
In-Reply-To: <002501ce4126\$e7197110\$4301a8c0@KB6NAX>
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
<002501ce4126\$e7197110\$4301a8c0@KB6NAX>
Message-ID: <74D17F3A534D4A8589085D83F9FA51E4@CompaqSR5710F>

----- Original Message -----

Subject: Re: [BoatAnchors] BC-348 Backlash Suggestions

> Avoid the tragic loss of a "sproing-ing-ing" event by lassoing the spring
> with a length of carpet thread or small size dental floss and tying the
> far
> end to something that won't move when the spring goes flying.

What an excellent suggestion! From now on, every time a spring is saved by your idea, I'm going to bless your name ;-)

From 4cx250b at miamioh.edu Thu Apr 25 20:38:10 2013
From: 4cx250b at miamioh.edu (Jim Garland)
Date: Thu, 25 Apr 2013 18:38:10 -0600
Subject: [BoatAnchors] Need help finding QST article
Message-ID: <016601ce4216\$54b1b850\$fe1528f0\$miamioh.edu>

Hi Gang,

I'm trying to find an article that appeared in QST, sometime in the 1960s or early 70s, featuring a vacuum tube SSB transmitter patterned loosely, if I recall correctly, on the KWS-1. The transmitter was designed and built by Harold W. Bourell W6NZ, who I believe was W0KQZ before obtaining his 1x2 callsign. Harold, who became an SK in 1999 at age 92, was the Engineer in Charge at the Kansas City District FCC office. Harold was one of the great homebrew masters of the era, and this SSB transmitter was his only publication (aside from some hints-and-kinks QST writeups in the late 40s.) The handful of his other homebrew rigs are scattered around the country and are highly coveted collectors items

Somehow this article got missed by the QST archive search engine, so don't bother searching that way. Also, don't bother googling his callsign or name. I've done all that, to no avail. Basically, I'm hoping somebody will remember seeing the article. The issue of QST with his writeup was sent to me about fourteen years ago by his XYL, Marguerte, but I lost it when I moved to New Mexico. Harold was in decline at that time, but I have a nice letter from Marguerite about Harold and his homebrew projects. All I remember about this particular QST issue is that it was the small size, black-and-white QST. Marguerite passed away this January and was well into her 90s.

I'm looking for this particular article because I want to see if I can link it to a homebrew SSB transmitter of that era that was given to me by a New Jersey ham a week ago. I posted a notice and a link to photos of the transmitter (<http://w8zrmysteryhomebrewtransmitter.shutterfly.com/pictures/8>) on this reflector. I've now had a chance to check out the transmitter and will make a posting about it shortly. Other than Harold, I don't know anybody who could have designed and built this transmitter, and so I'm doing my best to chase down the builder and the transmitter's history. It's truly a masterpiece of the homebrew art.

Tnx and 73,

Jim Garland W8ZR

From spr at earthlink.net Thu Apr 25 21:00:25 2013
From: spr at earthlink.net (spr at earthlink.net)
Date: Thu, 25 Apr 2013 18:00:25 -0700 (GMT-07:00)
Subject: [BoatAnchors] Need help finding QST article
Message-ID: <20331078.1366938026418.JavaMail.root@elwamui-lapwing.atl.sa.earthlink.net>

HI Jim,

The California Historical Radio Society has all of QST through the late '90s. I probably won't have time to do the search myself, but if I can convince someone else into doing it, I will.

The library is at our headquarters building in Berkeley California. If you have a friend here who'd do the search for you, we're there this Sunday and most Saturdays from 9-3. Check our website at

<www.californiahistoricalradio.com>

for our schedule, under 'events.'

Regards,

Scott

-----Original Message-----

>From: Jim Garland <4cx250b at miamioh.edu>
>Sent: Apr 25, 2013 5:38 PM
>To: boatanchors at theporch.com
>Subject: [BoatAnchors] Need help finding QST article
>
>Hi Gang,
>
>I'm trying to find an article that appeared in QST, sometime in the 1960s or
>early 70s, featuring a vacuum tube SSB transmitter patterned loosely, if I
>recall correctly, on the KWS-1. The transmitter was designed and built by
>Harold W. Bourell W6NZ, who I believe was W0KQZ before obtaining his 1x2
>callsign. Harold, who became an SK in 1999 at age 92, was the Engineer in
>Charge at the Kansas City District FCC office. Harold was one of the great
>homebrew masters of the era, and this SSB transmitter was his only
>publication (aside from some hints-and-kinks QST writeups in the late 40s.)
>The handful of his other homebrew rigs are scattered around the country and

>are highly coveted collectors items
>
>
>
>Somehow this article got missed by the QST archive search engine, so don't
>bother searching that way. Also, don't bother googling his callsign or name.
>I've done all that, to no avail. Basically, I'm hoping somebody will
>remember seeing the article. The issue of QST with his writeup was sent to
>me about fourteen years ago by his XYL, Marguerite, but I lost it when I
>moved to New Mexico. Harold was in decline at that time, but I have a nice
>letter from Marguerite about Harold and his homebrew projects. All I remember
>about this particular QST issue is that it was the small size,
>black-and-white QST. Marguerite passed away this January and was well into
>her 90s.
>
>
>
>I'm looking for this particular article because I want to see if I can link
>it to a homebrew SSB transmitter of that era that was given to me by a New
>Jersey ham a week ago. I posted a notice and a link to photos of the
>transmitter (<http://w8zrmysteryhomebrewtransmitter.shutterfly.com/pictures/8>
>) on this reflector. I've now had a chance to check out the transmitter and
>will make a posting about it shortly. Other than Harold, I don't know
>anybody who could have designed and built this transmitter, and so I'm doing
>my best to chase down the builder and the transmitter's history. It's truly
>a masterpiece of the homebrew art.
>
>Tnx and 73,
>
>Jim Garland W8ZR
>
>-----
>BoatAnchors mailing list
>BoatAnchors at theporch.com
><https://minime.theporch.com/mailman/listinfo/boatanchors>

From arc5 at ix.netcom.com Fri Apr 26 07:56:51 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 26 Apr 2013 06:56:51 -0500
Subject: [BoatAnchors] BC-348 Backlash/Play
In-Reply-To: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
Message-ID: <981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>

Thank you all for the good ideas and suggestions- yet
another example of the excellence of our community.

There's a famous quote from a Clint Eastwood movie:

"A man's got to know his limitations."

I'm no machinist. I'm lucky I don't drill holes through my own thumbnail. I am certain that if I attempt to remove any of these pins, I'm going to do irreparable damage to the mechanism; I'd rather put-up with the "wibble wobbles" on the high bands forever.
Moreover- this isn't my radio, so I'm unwilling to take that risk. I got all the electronics working well; I'll let my friend decide if he wants to take a chance with his radio. Besides- IMHO, trying to use a BC-348 to work DX on 20 meter CW or SSB is not the best idea. Still a lovely sounding shortwave broadcast listener up there.

All that being said, the "wibble-wobbles" are improved. The backlash/play issue is like a tree- it has many roots.

The first thing to do is to clean-up the heavy grease with which people inevitably contaminate these gears. And I'm biting my own tail, since when I was young and dumb (vs. now- old and dumb), I did it, too. Never use grease on these gears. See below. The "in and out" play in the tuning shaft I fixed with a snap-ring washer under the worm gear.

The play in the tuning capacitor I fixed as I posted last time. Important- When re-meshing the tuning cap split gear with the pinion, mesh them fully but do not compress them together. Pressure against the cap bearings causes "stuttering" as well as wear.

Lubricate the capacitor rotor contact sliders and bearings with De-Ox-It or similar. To my surprise, some of the "stuttering" was caused by slight binding at these points.

There's supposed to be a brace between the tuning capacitor frame/shield and one of the bandswitch boxes. Make sure it's tight.

Under the tuning knob, there is a felt washer which helps to damp tuning knob "stuttering." If it's rotten or compressed, replace it. Mine was compressed, but was able to "fluff it up" and back it with a washer over the shaft. Do not push the knob on so hard you re-compress the felt. Snug but not compressed.

All of this helped, but the big "bad actor" in this set is the worm gear wheel split gear- the one I can't get out, of course. Someone put heavy grease in this gear chain, which is always a mistake. The grease gets between the gear halves and becomes a sticky mess, defeating the purpose of the split gear. I've been able to wash-out most of it and, after applying heat to flow some of the glop away and a liberal use of penetrating oil, the "wibble wobbles" appear randomly across the dial and at random intensity as the goo between the halves slithers and slinks around. They seem to fade as the rig warms-up. Doubtless the heavy grease carried dust and dirt in there as well and it contributes to the problem.

I'm not removing the gear. Thank you, but that's absolutely not happening. So if I'm going to clear any more of the gloop from between these halves of the split gear, it will need to be done with more chemical washing. I've been using Mineral Spirits and it has helped, but is there anything better I might try?

TNX ES 73 DE Dave AB5S

From john.shriver at gmail.com Fri Apr 26 08:57:25 2013
From: john.shriver at gmail.com (John Shriver)
Date: Fri, 26 Apr 2013 08:57:25 -0400
Subject: [BoatAnchors] BC-348 Backlash/Play
In-Reply-To: <981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
<981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>
Message-ID: <124BD693-4A26-4D96-AF73-D2D7C0CB36E8@gmail.com>

In the camera repair world, naphtha (lighter fluid, Ronseal) is commonly used as a grease and oil remover. Especially for leaf shutter blades and lens diaphragm blades, which should run DRY, and are very sensitive to any stray oil that migrates to them.

Evaporates quickly, flammable as hell (duh), but a very effective solvent. Will gladly remove all the oils from your skin as well, might want to wear a pair of nitrile gloves. Generally doesn't attack plastics and paints, but check first. (Not that I'd expect much plastic in a BC-348!)

Much less dangerous to plastics and paint than acetone is.

On Apr 26, 2013, at 7:56 AM, "David Stinson" <arc5 at ix.netcom.com> wrote:

>

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>

> TNX ES 73 DE Dave AB5S

>

>

> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From 4cx250b at miamioh.edu Fri Apr 26 11:59:43 2013

From: 4cx250b at miamioh.edu (Jim Garland)

Date: Fri, 26 Apr 2013 09:59:43 -0600

Subject: [BoatAnchors] Need help finding QST article (UPDATE)

Message-ID: <027501ce4297\$12317890\$369469b0\$miamioh.edu>

Hi Gang,

Many thanks to those of you helping me track down the QST article by Harold Bourell (W6NZ) on his homebrew rig. So far, no luck finding the article, which appears to have been missed by the QST archive search engine. However, last night I came across an old letter from Harold's XYL, Marguerite, which she sent me some years ago, along with the now-lost issue of QST. Marguerrie mentioned that the article was on page 55 of QST, and that the project was for a 1000 Watt SSB transceiver, not a transmitter as I'd remembered. Her letter makes for interesting reading, so here is an excerpt:

"Harold doesn't have any notes on any of the gear he built. Any records that he had usually went with the gear. I can't think of anything that Harold would have enjoyed more than discussing [homebrew rigs] with you. The mechanics of ham radio have always been his forte. He was never one for "small talk." I would be the first one to agree with you that he built some beautiful ham gear. We have taken pieces to radio swap meets, and the guys there with an appreciation for that sort of thing would all admire it. He never had any problems selling it. One of the last things that Harold built was a 1000 Watt transceiver. The fellow who bought it was a friend of Leo Meyerson who has a radio museum in Omaha. He told Harold he was going to enjoy it for awhile and then give it to the museum. That would have been nice, but he died suddenly of a heart attack and the transceiver was sold in an estate sale. The buyer contacted Harold, but I don't think the transceiver will ever make the museum. Too bad. I'm enclosing a copy of an old QST that contains an article (page 55) [on the SSB transceiver] that

Harold submitted. These are the only pictures I can remember that he had taken of any gear, and the only thing published."

I received that letter on March 3, 1998. Harold became an SK on October 27, 1999 at age 92, and Marguerite passed away January of this year.

73,

Jim W8ZR

From hurstjsj at gmail.com Fri Apr 26 12:04:02 2013
From: hurstjsj at gmail.com (John Hurst)
Date: Fri, 26 Apr 2013 09:04:02 -0700
Subject: [BoatAnchors] BC-348 Backlash/Play
In-Reply-To: <124BD693-4A26-4D96-AF73-D2D7C0CB36E8@gmail.com>
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
<981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>
<124BD693-4A26-4D96-AF73-D2D7C0CB36E8@gmail.com>
Message-ID: <007e01ce4297\$ad2dd500\$07897f00\$@com>

I used to get Naptha in small cans at the Home Depot, etc. It's an excellent, gentle solvent. We can no longer buy it in this state (at least the Southern part). I have to smuggle it across the state line from AZ.

-----Original Message-----

From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of John Shriver
Sent: Friday, April 26, 2013 5:57 AM
To: David Stinson
Cc: boatanchors at theporch.com Radios
Subject: Re: [BoatAnchors] BC-348 Backlash/Play

In the camera repair world, naphtha (lighter fluid, Ronsonol) is commonly used as a grease and oil remover. Especially for leaf shutter blades and lens diaphragm blades, which should run DRY, and are very sensitive to any stray oil that migrates to them.

Evaporates quickly, flammable as hell (duh), but a very effective solvent. Will gladly remove all the oils from your skin as well, might want to wear a pair of nitrile gloves. Generally doesn't attack plastics and paints, but check first. (Not that I'd expect much plastic in a BC-348!)

Much less dangerous to plastics and paint than acetone is.

On Apr 26, 2013, at 7:56 AM, "David Stinson" <arc5 at ix.netcom.com> wrote:

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> I'm not removing the gear. Thank you, but that's absolutely not happening. So if I'm going to clear any more of the gloop from between these halves of the split gear, it will need to be done with more chemical washing. I've been using Mineral Spirits and it has helped, but is there anything better I might try?

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> TNX ES 73 DE Dave AB5S
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

BoatAnchors mailing list
BoatAnchors at theporch.com
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From 1oldlens1 at ix.netcom.com Fri Apr 26 12:56:59 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Fri, 26 Apr 2013 09:56:59 -0700
Subject: [BoatAnchors] BC-348 Backlash/Play
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
<981480F163214CBBBC0805118B1C2D65@CompaqSR5710F><124BD693-4A26-4D96-AF73-D2D7C0CB36E8@gmail.com>
<007e01ce4297\$ad2dd500\$07897f00\$@com>
Message-ID: <0A00441BE6FF41889A817ED03511F693@VALUED20606295>

----- Original Message -----

From: "John Hurst" <hurstjsj at gmail.com>
To: "'John Shriver'" <john.shriver at gmail.com>; "David Stinson" <arc5 at ix.netcom.com>
Cc: <boatanchors at theporch.com>

Sent: Friday, April 26, 2013 9:04 AM
Subject: Re: [BoatAnchors] BC-348 Backlash/Play

>I used to get Naptha in small cans at the Home Depot, etc.
>It's an
> excellent, gentle solvent. We can no longer buy it in
> this state (at least
> the Southern part). I have to smuggle it across the state
> line from AZ.
>

If naphtha is banned can you find Ronsonol lighter fluid or Coleman lantern and stove fuel? Ronsonol is quite pure naphtha that does not leave a residue. I am not sure what exactly is in Coleman fuel but it smells like its naphtha and works well as a solvent.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk at ix.netcom.com

From thompson at mindspring.com Fri Apr 26 13:12:25 2013
From: thompson at mindspring.com (David Thompson)
Date: Fri, 26 Apr 2013 13:12:25 -0400
Subject: [BoatAnchors] QST search
Message-ID: <018e01ce42a1\$3d1aaf90\$675e4d0c@yourxb2x7j77gn>

ARRL members can search QST back to the beginning

www.arrl.org/arrl-periodicals-archive-search

This is called ARRL Periodicals Archive and search on the arrl web.

73 Dave K4JRB

From k1lky at earthlink.net Fri Apr 26 16:35:33 2013
From: k1lky at earthlink.net (Roy Morgan)
Date: Fri, 26 Apr 2013 16:35:33 -0400
Subject: [BoatAnchors] BC-348 Backlash/Play
In-Reply-To: <0A00441BE6FF41889A817ED03511F693@VALUED20606295>

References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
<981480F163214CBBBC0805118B1C2D65@CompaqSR5710F><124BD693-4A26-4D96-AF73-D2D7C0CB36E8@gmail.com>
<007e01ce4297\$ad2dd500\$07897f00\$@com>
<0A00441BE6FF41889A817ED03511F693@VALUED20606295>
Message-ID: <4ADF4357-04DA-49CE-A4EA-4AF259B7AC52@earthlink.net>

On Apr 26, 2013, at 12:56 PM, Richard Knoppow wrote:

> ... I am not sure what exactly is in Coleman fuel but it smells like
> its naphtha and works well as a solvent.

I used to know a fellow who was on the team that flew a self-guided "model" airplane from Nova Scotia to Europe. The thing ran on Coleman fuel, because there was no other (practical) fuel that has as much energy per weight as that. It may well be close to naphtha in chemical nature, but likely is is not just the same.

Roy

Roy Morgan
k1lky at earthlink.net
K1LKY Since 1958 - Keep 'em Glowing!

From gsantacana at gmail.com Fri Apr 26 16:41:11 2013
From: gsantacana at gmail.com (Guido Santacana)
Date: Fri, 26 Apr 2013 16:41:11 -0400
Subject: [BoatAnchors] SP210SX
Message-ID: <CA01yix1C0Vdz5cdBs8RW0jZARni_hAhvzX0-HePa0VTm7Zx6vA@mail.gmail.com>

Gentlemen,

My SP210SX has a bad T7. That's the interstage transformer in the audio section. The manual states a 3000ohm primary but details of the secondary are not clear. If anyone has an idea of an appropriate replacement it will be appreciated. If anyone has a junker set and can part with this one even better.

I only found a 7k primary 15k secondary one in AES. Other than that my SP210SX was working quite well.

Thanks and best 73s

Guido Santacana KP4FAR

From gumbear at pacbell.net Fri Apr 26 16:58:42 2013
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 26 Apr 2013 13:58:42 -0700
Subject: [BoatAnchors] BC-348 Backlash/Play
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
<981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>
Message-ID: <001c01ce42c0\$f501e820\$4301a8c0@KB6NAX>

> I've been using Mineral Spirits and it has helped,
but is there anything better I might try?

I've found mineral spirits do a better job than the exotic (\$\$\$\$)
formulations. Also, it works longer because its evaporation rate is slower.
Naphtha would be good also. You might try drawing some of the dissolved gunk
out by slipping pieces of typewriter paper, I mean printer paper (my age is
showing), between the split gear halves.

Arden Allen
KB6NAX

Adopt a shelter dog,
save an innocent life,
and make a friend forever =:-)

From mike at oldaudio.net Fri Apr 26 17:18:49 2013
From: mike at oldaudio.net (Mike Durff)
Date: Fri, 26 Apr 2013 14:18:49 -0700 (PDT)
Subject: [BoatAnchors] Wanted RBC receiver
Message-ID: <1367011129.87315.YahooMailNeo@web5704.biz.mail.ne1.yahoo.com>

Hello all:?
I'm looking for an RBC receiver in working or, at least, "restorable" condx.
Thanks.?
reply to mike at oldaudio.net

From 4cx250b at miamioh.edu Fri Apr 26 18:58:15 2013
From: 4cx250b at miamioh.edu (Jim Garland)
Date: Fri, 26 Apr 2013 16:58:15 -0600
Subject: [BoatAnchors] Need help finding QST article (UPDATE)
In-Reply-To: <517AE71F.9080600@mindspring.com>
References: <027501ce4297\$12317890\$369469b0@miamioh.edu>
<517AE71F.9080600@mindspring.com>
Message-ID: <035c01ce42d1\$8a5d9530\$9f18bf90@miamioh.edu>

Hi Garey,

Great! Thanks so much for tracking this down. I see now why the Archive search engine missed it. The title "A Dead Art?" certainly wasn't very descriptive! Also, curiously, the article was evidently written by a QST staff member, since no author was listed. Harold was a remarkable craftsman, and anybody who has one of his creations has a treasure. However, I don't think he was the designer and builder of my "mystery transmitter," despite some similar construction techniques. Soon, I'll make a posting on what I've learned about the transmitter, which is also a remarkable homebrew effort.

73,

Jim W8ZR

> -----Original Message-----

> From: Garey Barrell [mailto:k4oah at mindspring.com]

> Sent: Friday, April 26, 2013 2:44 PM

> To: Jim Garland; Boatanchors

> Subject: Re: [BoatAnchors] Need help finding QST article (UPDATE)

>

> Jim -

>

> Here you go. January 1961. Easy to look at Page 55 of each month

> with the CDs! :-) Of course I started with 1964 and worked

> backwards.....

>

> No 'author', and nothing in the title to indicate what it was. Tough

> to index.

>

> The CD scans are pretty crappy, but I have the hard copy, somewhere,

> If I can locate I can make a good PDF of it.

>

> 73, Garey - K4OAH

> Glen Allen, VA

>

> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

> and TR-4/C Service Supplement CDs

> <www.k4oah.com>

>

> Jim Garland wrote:

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Her

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> >

> >

> >

> > "Harold doesn't have any notes on any of the gear he built. Any records that

> > he had usually went with the gear. I can't think of anything that Harold

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> > mechanics of ham radio have always been his forte. He was never one for

> > "small talk." I would be the first one to agree with you that he built some

> > beautiful ham gear. We have taken pieces to radio swap meets, and the guys

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He

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> > Harold submitted. These are the only pictures I can remember that he had

> > taken of any gear, and the only thing published."

> >

> >

> >

> > I received that letter on March 3, 1998. Harold became an SK on October 27,

> > 1999 at age 92, and Marguerite passed away January of this year.

> >

> >

> >

> > 73,

> >

> > Jim W8ZR

> >

> >

> >
> >
> >
> >
> >
> >
> > -----
> > BoatAnchors mailing list
> > BoatAnchors at theporch.com
> > <https://minime.theporch.com/mailman/listinfo/boatanchors>
> >

From arc5 at ix.netcom.com Fri Apr 26 19:16:11 2013
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 26 Apr 2013 18:16:11 -0500
Subject: [BoatAnchors] BC-348 Backlash/Play - Success!
In-Reply-To: <981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>
References: <EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F>
<981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>
Message-ID: <BEF30247F0094DD3B1B0FDF4841586F@CompaqSR5710F>

Those who suggested lighter fluid / naptha,
give yourselves a gold star!

I got some "Ronsonol" lighter fluid at a local store.
Put some on an old toothbrush and gently
cleaned away the last of the old grease and dirt between
the gear teeth. Then used a needle end to pry the two
halves of the split gear apart so I could "flush" them with
the fluid. Rotated the gear and kept flushing. Used
about a third of the bottle.
It wasn't all that stinky and smelling it di-di-di-didn't -t -t
affe-fe-fe-fect me nu- nu- nu- nun!

I also tore some thin strips of white printer paper and
tucked them as far as I could between the gear halves,
pulling them back out and dragging crud out with them,
but I stopped doing that when a bit of paper got left behind
and I had the very devil getting it back out.

Once it dried
(all that old grease residue collected
under the gear and on its side),
I put a couple of drops of 3-in-1 Electric Motor Oil
on the spiral worm gear on the shaft,
not on the split gear. I left the split gear dry.

The "wibble-wobble" is almost completely gone!
Hurrah!

To everyone who contributed, I thank you.

73 DE Dave AB5S

From anchor at ec.rr.com Fri Apr 26 19:49:58 2013
From: anchor at ec.rr.com (Al Parker)
Date: Fri, 26 Apr 2013 19:49:58 -0400
Subject: [BoatAnchors] [Hammarlund] SP210SX
In-Reply-To: <CA01yix1COVdz5cdBs8RW0jZARni_hAhvzX0-HePa0VTm7Zx6vA@mail.gmail.com>
References: <CA01yix1COVdz5cdBs8RW0jZARni_hAhvzX0-HePa0VTm7Zx6vA@mail.gmail.com>
Message-ID: <517B12A6.2050202@ec.rr.com>

Hi Guido,

You're right, Hammarlund was particularly silent about the specifics of T-7. I've just ckd several manuals, the best I can find is that it was a Chicago Transformer co. Spec. no. 4212-C (special). As a guess, I'd say the secondary would be in the 12-15k range, maybe higher. Someone might have some Chicago Transformer catalog info, but it might not help.

Perhaps Gary Brown, WZ1M, might have one available, he's got a lot of parts, try at

<http://tubes_tubes_tubes.tripod.com/tubestubestubes/>

Bill gates seems to raid my email address book regularly, so I can't give you his email. I've been a satisfied customer several times. He also rewinds transformers, so might know the specs.

73,

Al, W8UT

www.boatanchors.org

www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much worth doing as simply messing about in boats"

Ratty, to Mole

On 4/26/2013 4:41 PM, Guido Santacana wrote:

> Gentlemen,

>

> My SP210SX has a bad T7. That's the interstage transformer in the audio
> section. The manual states a 3000ohm primary but details of the secondary
> are not clear. If anyone has an idea of an appropriate replacement it will
> be appreciated. If anyone has a junker set and can part with this one even
> better.

> I only found a 7k primary 15k secondary one in AES. Other than that my
> SP210SX was working quite well.
>
> Thanks and best 73s
>
> Guido Santacana KP4FAR
> -----
> Hammarlund mailing list
> Home: <http://mailman.qth.net/mailman/listinfo/hammarlund>
> Help: <http://mailman.qth.net/mmfaq.htm>
> Post: <mailto:Hammarlund@mailman.qth.net>
>
> List Administrator: Duane Fischer, W8DBF
> ** For Assistance: dfischer@usol.com **
>
>
> This list hosted by: <http://www.qsl.net>
> Please help support this email list: <http://www.qsl.net/donate.html>
>

From anchor at ec.rr.com Fri Apr 26 20:01:21 2013
From: anchor at ec.rr.com (Al Parker)
Date: Fri, 26 Apr 2013 20:01:21 -0400
Subject: [BoatAnchors] [Hammarlund] SP210SX
In-Reply-To: <CA01yix1C0Vdz5cdBs8RW0jZARni_hAhvzX0-HePa0VTm7Zx6vA@mail.gmail.com>
References: <CA01yix1C0Vdz5cdBs8RW0jZARni_hAhvzX0-HePa0VTm7Zx6vA@mail.gmail.com>
Message-ID: <517B1551.9050803@ec.rr.com>

Hi again Guido,

Just found the SP-400 manual, Sams, I think, shows thus:
pri. DC resistance 630 ohms, secondary res. 690 ohms; ratio, pri. to
sec. 1.35 to 1; replacements - Stancor part no. A-3304, Thordarson pt.
no. T22S76 (those two would require new mounting holes).

The SP-400 uses the same tube setup, a 6F6 driving a pair of 6F6's, so
probably the same ckt arrgt.

I hope this is some help.

73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 4/26/2013 4:41 PM, Guido Santacana wrote:

> Gentlemen,
>
> My SP210SX has a bad T7. That's the interstage transformer in the audio
> section. The manual states a 3000ohm primary but details of the secondary
> are not clear. If anyone has an idea of an appropriate replacement it will
> be appreciated. If anyone has a junker set and can part with this one even
> better.
> I only found a 7k primary 15k secondary one in AES. Other than that my
> SP210SX was working quite well.
>
> Thanks and best 73s
>
> Guido Santacana KP4FAR
> -----
> Hammarlund mailing list
> Home: <http://mailman.qth.net/mailman/listinfo/hammarlund>
> Help: <http://mailman.qth.net/mmfaq.htm>
> Post: <mailto:Hammarlund@mailman.qth.net>
>
> List Administrator: Duane Fischer, W8DBF
> ** For Assistance: dfischer@usol.com **
>
>
> This list hosted by: <http://www.qsl.net>
> Please help support this email list: <http://www.qsl.net/donate.html>
>

From 1oldlens1 at ix.netcom.com Fri Apr 26 20:28:23 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Fri, 26 Apr 2013 17:28:23 -0700
Subject: [BoatAnchors] [ARC5] BC-348 Backlash/Play
References:
<EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F><981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>
<001c01ce42c0\$f501e820\$4301a8c0@KB6NAX>
Message-ID: <3727759A08444FC9AC8928B487D5DAB5@VALUED20606295>

----- Original Message -----

From: "Arden Allen" <gumbear@pacbell.net>
To: "David Stinson" <arc5@ix.netcom.com>; "ARC-5 List"
<arc5@mailman.qth.net>; <milsurplus@mailman.qth.net>;
<boatanchors@theporch.com>; <boatanchors@mailman.qth.net>
Sent: Friday, April 26, 2013 1:58 PM
Subject: Re: [ARC5] [BoatAnchors] BC-348 Backlash/Play

>> I've been using Mineral Spirits and it has helped,
> but is there anything better I might try?
>
> I've found mineral spirits do a better job than the exotic
> (\$\$\$\$)
> formulations. Also, it works longer because its
> evaporation rate is slower.
> Naptha would be good also. You might try drawing some of
> the dissolved gunk
> out by slipping pieces of typewriter paper, I mean printer
> paper (my age is
> showing), between the split gear halves.
>
> Arden Allen
> KB6NAX

FWIW, Mineral Spirits or White Spirits are also known as Stoddard solvent. Stoddard solvent was invented in 1928 as a dry cleaning solvent to replace the naphtha and other more inflammable solvents used at the time. If the odor is familiar its because dry cleaned clothes often have a residual odor of Stoddard solvent. I think other materials have supplanted it in clothes cleaning but it may have come back into use with the banning of chlorinated hydrocarbons.

Also, there are two classes of solvents: polar and non-polar. Polar solvents are soluble in water like alcohol, non-polar solvents do not dissolve in water like gasoline, benzene, etc. The right kind of solvent is needed for the material one wants to dissolve. For oils and greases one needs a non-polar solvent.

--

Richard Knoppow
Los Angeles
WB6KBL
dickburk at ix.netcom.com

From gumbear at pacbell.net Fri Apr 26 21:37:48 2013

From: gumbear at pacbell.net (Arden Allen)

Date: Fri, 26 Apr 2013 18:37:48 -0700

Subject: [BoatAnchors] [ARC5] BC-348 Backlash/Play

References:

<EF6E31C6015D4FB2873BAF8CBA86BEFB@CompaqSR5710F><981480F163214CBBBC0805118B1C2D65@CompaqSR5710F>

<001c01ce42c0\$f501e820\$4301a8c0@KB6NAX>

<3727759A08444FC9AC8928B487D5DAB5@VALUED20606295>

Message-ID: <001f01ce42e7\$d5f7f9c0\$4301a8c0@KB6NAX>

> Also, there are two classes of solvents: polar and non-polar. Polar solvents are soluble in water like alcohol, non-polar solvents do not dissolve in water like gasoline, benzene, etc. The right kind of solvent is needed for the material one wants to dissolve. For oils and greases one needs a non-polar solvent.

FWIW+, acetone is a polar solvent. Some potent cleaning solutions can be made from water, acetone and oleic acid concoctions. Disclaimer - I've never made any for myself but did mix one up at a work venue for cleaning electronic equipment but I don't remember the formula.

Arden Allen
KB6NAX

If you pick up a starving dog and make him prosperous, he will not bite you. This is the principle difference between a dog and a man. -Mark Twain

From scb at hiwaay.net Sat Apr 27 08:33:34 2013

From: scb at hiwaay.net (scb at hiwaay.net)

Date: Sat, 27 Apr 2013 07:33:34 -0500

Subject: [BoatAnchors] Naphtha degreasing caveat

Message-ID: <20130427073334.214264zghyyw6nq6@webmail.hiwaay.net>

Hi folks;

Naphtha is usually benign to most finishes and plastics but is instant death to styrene, excersize caution and try a bit on a toothpick on a spot on any item suspected to be styrene, which started to turn up as a versatile plastic RF insulator ca WW-II IIRC. Otherwise as noted one of the best most reliable totally drying oil/grease removing solvents available.

Rgds; Steve B.

From bkemp at bobbkemp.com Sat Apr 27 15:32:00 2013

From: bkemp at bobbkemp.com (bkemp at bobbkemp.com)

Date: Sat, 27 Apr 2013 14:32:00 -0500

Subject: [BoatAnchors] 4-1000s

Message-ID: <1E2C6C52C7FF42349C41BFE8B6759C2F@Bob>

I have (4) 4-1000 tubes. One says 20K hours and I of course don't have any way to test them. Anyone out there got some advise as to where to send them to be checked?

Thanks

w0avrc

Bob

Bob Kemp

651-764-4788

From bkemp at bobbkemp.com Sat Apr 27 17:57:41 2013

From: bkemp at bobbkemp.com (bkemp at bobbkemp.com)

Date: Sat, 27 Apr 2013 16:57:41 -0500

Subject: [BoatAnchors] 807's

Message-ID: <000601ce4392\$3dc28ed0\$b947ac70\$@com>

Anyone have use for some 807 tubes?

Bob

Wa0vrc

From k4oah at mindspring.com Fri Apr 26 16:44:15 2013

From: k4oah at mindspring.com (Garey Barrell)

Date: Fri, 26 Apr 2013 16:44:15 -0400

Subject: [BoatAnchors] Need help finding QST article (UPDATE)

In-Reply-To: <027501ce4297\$12317890\$369469b0\$@miamioh.edu>

References: <027501ce4297\$12317890\$369469b0\$@miamioh.edu>

Message-ID: <517AE71F.9080600@mindspring.com>

Jim -

Here you go. January 1961. Easy to look at Page 55 of each month with the CDs! :-) Of course I started with 1964 and worked backwards.....

No 'author', and nothing in the title to indicate what it was. Tough to index.

The CD scans are pretty crappy, but I have the hard copy, somewhere, If I can locate I can make a good PDF of it.

73, Garey - K40AH

Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Garland wrote:

> Hi Gang,

>

> Many thanks to those of you helping me track down the QST article by Harold
> Bourell (W6NZ) on his homebrew rig. So far, no luck finding the article,
> which appears to have been missed by the QST archive search engine. However,
> last night I came across an old letter from Harold's XYL, Marguerite, which
> she sent me some years ago, along with the now-lost issue of QST. Marguerite
> mentioned that the article was on page 55 of QST, and that the project was
> for a 1000 Watt SSB transceiver, not a transmitter as I'd remembered. Her
> letter makes for interesting reading, so here is an excerpt:

>

>

>

> "Harold doesn't have any notes on any of the gear he built. Any records that
> he had usually went with the gear. I can't think of anything that Harold
> would have enjoyed more than discussing [homebrew rigs] with you. The
> mechanics of ham radio have always been his forte. He was never one for
> "small talk." I would be the first one to agree with you that he built some
> beautiful ham gear. We have taken pieces to radio swap meets, and the guys
> there with an appreciation for that sort of thing would all admire it. He
> never had any problems selling it. One of the last things that Harold built
> was a 1000 Watt transceiver. The fellow who bought it was a friend of Leo
> Meyerson who has a radio museum in Omaha. He told Harold he was going to
> enjoy it for awhile and then give it to the museum. That would have been
> nice, but he died suddenly of a heart attack and the transceiver was sold in
> an estate sale. The buyer contacted Harold, but I don't think the
> transceiver will ever make the museum. Too bad. I'm enclosing a copy of an
> old QST that contains an article (page 55) [on the SSB transceiver] that
> Harold submitted. These are the only pictures I can remember that he had
> taken of any gear, and the only thing published."

>

>

>

> I received that letter on March 3, 1998. Harold became an SK on October 27,
> 1999 at age 92, and Marguerite passed away January of this year.

>

>

>

> 73,

>

> Jim W8ZR

>

>
>
>
>
>
>
>
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

From jharper at secureoutcomes.net Sat Apr 27 14:39:20 2013
From: jharper at secureoutcomes.net (Jack Harper)
Date: Sat, 27 Apr 2013 12:39:20 -0600
Subject: [BoatAnchors] (BA List) Hammarlund HX-500 Transmitter... (Halp!)
Message-ID: <mailman.7.1367106519.159.boatanchors@theporch.com>

Greetings to the List...

I am hopefully bringing back "up to snuff" a really nice Hammarlund HX-500 transmitter. If I can get this beast into top-notch shape, I plan for it to be my primary transmitter (CW) with the R390A "forever".

The HX-500 is a large rack-mounted 85-pound beast (oh, my aching back) with 21 tubes - two 6146s in parallel for the final - support for CW, SSB, DSB, FM, FSK/RTTY 80-10 meters.

Hammarlund brought the HX-500 to market in 1962 or so - not many were built - 600 or so. Mine is s/n 294.

It is in excellent cosmetic condition and, I think, "almost" HI working, though there are a few problems :)

First thing that I did was to install a modern three-wire power cable etc.

Second was to go through and replace the electrolytics and the several paper capacitors.

I did power the transmitter up - there is no output power and the 6A slow-blo fuse pops after about a minute in STANDBY.

I am at the "Check Resistance" values stage now -

I am a bit surprised to see that almost all of the 150+ specified resistance points are solidly within 10%. There are, however, six that are off.

The first two were simple to correct: #1 was caused by a modification recommended by Hammarlund in the first audio amplifier to eliminate a source of distortion. That checked out.

#2 was another Hammarlund recommended modification, which also checked out.

However, bad resistance #3 is a bit different. V8 is a 6U8 used for anti-trip-relay control. Pin #8 is the cathode and the schematic shows (and the physical circuit agrees) three resistors in parallel from Pin-8:

R54 is a 2.2K to ground from Pin-8.

R56 is a 47K to +300VDC line. The +300VDC line at that point measures 18K to ground after it settles (electrolytics).

R55 is a 470-ohm to the "operations switch" (S0-2A) which is "OFF" for the published resistance measurements. In OFF, R55 floats and, therefore, should not be a factor in the measured resistance.

The Hammarlund published resistance measurement for Pin-8 is stated to be 350-ohms. But, I measure it in the physical circuit at 2.3K.

Calculating the expected resistance from the schematic comes up as 2.1K or so - which is within 7% of the actual measured value.

I think there is an error in the Hammarlund published resistance chart, but I may be missing something. The stated 350-ohms should, I think, really be about 2.1K.

Also, if you assume that the Operations Switch grounds R55 (it doesn't in OFF, it floats and I measured the resistance and it is not grounded), then the calculated value comes out to about 380 - close to the stated expected value - or some such - I wonder if Hammarlund errored...

Advice and Counsel greatly appreciated. I hate the idea of leaving Pin-8 totally out of published spec without a reason...

Thoughts from a List Member that has tackled a HX-500 before???

Regards to the List on a beautiful Saturday afternoon...

Jack, W?YJ ("Friend to all things Hammarlund")
Evergreen, Colorado USA

From rbsingl at ilstu.edu Sat Apr 27 21:22:22 2013
From: rbsingl at ilstu.edu (Singley, Rodger)
Date: Sun, 28 Apr 2013 01:22:22 +0000
Subject: [BoatAnchors] Odd Hammarlund SP-400X experience
Message-ID: <0DEBF1C8D8437248BE53CD4213B89BD322EE59D0@ISUEMBX02.ad.ilstu.edu>

I just finished recapping a very nice looking SP-400X and power supply. When I got it the receiver looked very nice and I never tried it before starting restoration because I could see it still had all of the original wax/paper capacitors. I spent the last two days replacing all of the power supply electrolytic caps and then going through the receiver replacing paper caps (including those hidden in the IF cans). When I finished it the receiver powered up with audio and no smoke but no signals either. The IF worked fine and injecting signals into the grid of the mixer resulted in strong reception. Further tracing with the scope showed the signal was making it through the first but not the second RF stage. And here is where it gets weird: the cathode connection (pin 8) of the second RF stage tube socket was never connected to ground, the pin is pristine and virgin. There is no sign whatsoever that the socket was changed, it matches and is riveted just like the others. The IF stages appear to be in reasonable alignment, the BFO is on frequency, and the HFO is well within normal alignment tolerance. Although I haven't gone through the full alignment yet signals are now coming through quite well now.

So how in the hell could this ever have left the factory in that condition? It makes no sense to me. An RF stage with the cathode floating doesn't amplify. The closest I have come to this situation before was in my Hallicrafters SX-88. Here I traced an intermittent noise to a band 6 coil connection which was in place, had a dot of inspection paint, but no solder. I can understand how it could have passed initial tests (and even years of use) before the problem appeared.

In any case, I have a SP-400X that is working quite well now and should do even

better after a proper alignment.

Rodger WQ9E

Dr. Rodger B. Singley
Professor of Marketing

From k1lky at earthlink.net Sat Apr 27 22:38:38 2013
From: k1lky at earthlink.net (Roy Morgan)
Date: Sat, 27 Apr 2013 22:38:38 -0400
Subject: [BoatAnchors] Odd Hammarlund SP-400X experience
In-Reply-To: <0DEBF1C8D8437248BE53CD4213B89BD322EE59D0@ISUEMBX02.ad.ilstu.edu>
References: <0DEBF1C8D8437248BE53CD4213B89BD322EE59D0@ISUEMBX02.ad.ilstu.edu>
Message-ID: <88832E4B-3704-4AD9-80ED-64CA97F47906@earthlink.net>

On Apr 27, 2013, at 9:22 PM, Singley, Rodger wrote:

> ... the cathode connection (pin 8) of the second RF stage tube
> socket was never connected to ground, the pin is pristine and
> virgin. ...
>
> So how in the hell could this ever have left the factory in that
> condition?

Roger,

I can think of only one possible explanation (and I'm not suggesting it's the only one):

The tube used in that socket when the radio was built was a different one than you expect. It's possible that a similar tube has the cathode (and grid 3, perhaps) tied to a different pin, which is connected to ground.

In a number of tubes of that era, pin 1 is the metal shell of the metal version of a tube, and/or internal shield in the glass envelope version. Some radios had pin 1 not connected, or even had sockets with no pin 1 contact. So when you used a metal tube in that socket, the thing would oscillate or do other strange things.

Maybe something like that situation was the case with your radio.

I look forward to the ideas of other folks.

Roy

Roy Morgan
k1lky at earthlink.net
K1LKY Since 1958 - Keep 'em Glowing!

From 1oldlens1 at ix.netcom.com Sat Apr 27 23:12:00 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Sat, 27 Apr 2013 20:12:00 -0700
Subject: [BoatAnchors] Odd Hammarlund SP-400X experience
References: <0DEBF1C8D8437248BE53CD4213B89BD322EE59D0@ISUEMBX02.ad.ilstu.edu>
<88832E4B-3704-4AD9-80ED-64CA97F47906@earthlink.net>
Message-ID: <D2908846B73F491EA399077B8373CA4C@VALUED20606295>

----- Original Message -----

From: "Roy Morgan" <k1lky at earthlink.net>
To: "Singley, Rodger" <rbsingl at ilstu.edu>
Cc: "Boatanchors" <boatanchors at theporch.com>
Sent: Saturday, April 27, 2013 7:38 PM
Subject: Re: [BoatAnchors] Odd Hammarlund SP-400X experience

>
> On Apr 27, 2013, at 9:22 PM, Singley, Rodger wrote:
>
>> ... the cathode connection (pin 8) of the second RF stage
>> tube socket was never connected to ground, the pin is
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>
> Roger,
>
> I can think of only one possible explanation (and I'm not
> suggesting it's the only one):
>
> The tube used in that socket when the radio was built was
> a different one than you expect. It's possible that a
> similar tube has the cathode (and grid 3, perhaps) tied
> to a different pin, which is connected to ground.
>

> In a number of tubes of that era, pin 1 is the metal shell
> of the metal version of a tube, and/or internal shield in
> the glass envelope version. Some radios had pin 1 not
> connected, or even had sockets with no pin 1 contact. So
> when you used a metal tube in that socket, the thing
> would oscillate or do other strange things.

>

> Maybe something like that situation was the case with your
> radio.

>

> I look forward to the ideas of other folks.

>

> Roy

>

This is very curious. There are three versions of the
6K7, metal, glass GT and glass G (large envelope). In all
the cathode and suppressor go to pin 8 In the 6K7 (metal
tube) pin 1 goes to the shell of the tube and in the GT it
goes to an internal base sleeve. Since the SP-400 used late
metal tubes Pin 1 should be grounded but that will not
connect the cathode. I wonder if its possible a jumper was
installed between pin 1 and pin 8 that was never soldered
and fell out at some point. That is very far fetched but I
am puzzled as you are by how the receiver could have gotten
out of the factory aligned when the second RF stage was not
working.

--

Richard Knoppow

Los Angeles

WB6KBL

dickburk at ix.netcom.com

From spr at earthlink.net Sat Apr 27 23:35:53 2013

From: spr at earthlink.net (Scott Robinson)

Date: Sat, 27 Apr 2013 20:35:53 -0700

Subject: [BoatAnchors] Odd Hammarlund SP-400X experience

In-Reply-To: <88832E4B-3704-4AD9-80ED-64CA97F47906@earthlink.net>

References: <0DEBF1C8D8437248BE53CD4213B89BD322EE59D0@ISUEMBX02.ad.ilstu.edu>

<88832E4B-3704-4AD9-80ED-64CA97F47906@earthlink.net>

Message-ID: <517C9919.8010005@earthlink.net>

Also, on some high frequency tubes the cathode is brought out to two
pins, to decrease the stray inductance in the cathode circuit.

On types 1852, 1853, and 6AC7, the cathode is on pin 5.

/scott

On 4/27/13 7:38 PM, Roy Morgan wrote:

>
> On Apr 27, 2013, at 9:22 PM, Singley, Rodger wrote:
>
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>> was never connected to ground, the pin is pristine and virgin. ...
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> Roy Morgan
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> K1LKY Since 1958 - Keep 'em Glowing!
>
>
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

From thompson at mindspring.com Sun Apr 28 00:11:24 2013
From: thompson at mindspring.com (David Thompson)
Date: Sun, 28 Apr 2013 00:11:24 -0400
Subject: [BoatAnchors] Need help finding QST article (UPDATE)
References:
<027501ce4297\$12317890\$369469b0\$miamioh.edu><517AE71F.9080600@mindspring.com>
<035c01ce42d1\$8a5d9530\$9f18bf90\$miamioh.edu>
Message-ID: <005601ce43c6\$7afe6100\$645e4d0c@yourxb2x7j77gn>

It is indexed as "A Dead Art?" No author, no description of the transmitter,
no call except in the article. Maybe ARRL could add a description and maybe the builders name and call. Strange that ARRL did not tell us what staffer did the report.
73 Dave K4JRB

----- Original Message -----

From: "Jim Garland" <4cx250b at miamioh.edu>
To: <k4oah at mindspring.com>; "'Boatanchors'" <boatanchors at theporch.com>
Sent: Friday, April 26, 2013 6:58 PM
Subject: Re: [BoatAnchors] Need help finding QST article (UPDATE)

> Hi Garey,
> Great! Thanks so much for tracking this down. I see now why the Archive
> search engine missed it. The title "A Dead Art?" certainly wasn't very
> descriptive! Also, curiously, the article was evidently written by a QST
> staff member, since no author was listed. Harold was a remarkable
> craftsman,
> and anybody who has one of his creations has a treasure. However, I don't
> think he was the designer and builder of my "mystery transmitter," despite
> some similar construction techniques. Soon, I'll make a posting on what
> I've
> learned about the transmitter, which is also a remarkable homebrew effort.
> 73,
> Jim W8ZR

>> -----Original Message-----

>> From: Garey Barrell [mailto:k4oah at mindspring.com]
>> Sent: Friday, April 26, 2013 2:44 PM
>> To: Jim Garland; Boatanchors
>> Subject: Re: [BoatAnchors] Need help finding QST article (UPDATE)
>>
>> Jim -
>>
>> Here you go. January 1961. Easy to look at Page 55 of each month

>> with the CDs! :-) Of course I started with 1964 and worked
>> backwards.....
>>
>> No 'author', and nothing in the title to indicate what it was. Tough
>> to index.
>>
>> The CD scans are pretty crappy, but I have the hard copy, somewhere,
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>> 73, Garey - K4OAH
>> Glen Allen, VA
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>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>> and TR-4/C Service Supplement CDs
>> <www.k4oah.com>
>>
>> Jim Garland wrote:
>> > Hi Gang,
>> >
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>> > he had usually went with the gear. I can't think of anything that
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>> > would have enjoyed more than discussing [homebrew rigs] with you. The
>> > mechanics of ham radio have always been his forte. He was never one for
>> > "small talk." I would be the first one to agree with you that he built
>> > some
>> > beautiful ham gear. We have taken pieces to radio swap meets, and the
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>> > there with an appreciation for that sort of thing would all admire it.

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>> > was a 1000 Watt transceiver. The fellow who bought it was a friend of
> Leo
>> > Meyerson who has a radio museum in Omaha. He told Harold he was going
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>> > enjoy it for awhile and then give it to the museum. That would have
>> > been
>> > nice, but he died suddenly of a heart attack and the transceiver was
> sold in
>> > an estate sale. The buyer contacted Harold, but I don't think the
>> > transceiver will ever make the museum. Too bad. I'm enclosing a copy
>> > of
> an
>> > old QST that contains an article (page 55) [on the SSB transceiver]
>> > that
>> > Harold submitted. These are the only pictures I can remember that he
>> > had
>> > taken of any gear, and the only thing published."
>> >
>> >
>> >
>> > I received that letter on March 3, 1998. Harold became an SK on October
> 27,
>> > 1999 at age 92, and Marguerite passed away January of this year.
>> >
>> >
>> >
>> > 73,
>> >
>> > Jim W8ZR
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> >
>> > -----
>> > BoatAnchors mailing list
>> > BoatAnchors at theporch.com
>> > <https://minime.theporch.com/mailman/listinfo/boatanchors>
>> >
>
>
> -----
> BoatAnchors mailing list

> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>
>

From spr at earthlink.net Sun Apr 28 01:08:02 2013
From: spr at earthlink.net (Scott Robinson)
Date: Sat, 27 Apr 2013 22:08:02 -0700
Subject: [BoatAnchors] Odd Hammarlund SP-400X experience
In-Reply-To: <1164e6.65d3d738.3eae0138@cs.com>
References: <1164e6.65d3d738.3eae0138@cs.com>
Message-ID: <517CAEB2.5020500@earthlink.net>

Hi Robert,

My 1953 vintage Stewart-Warner built R-390A had a crimped but not soldered connection to a tube socket in the RF deck, military inspection notwithstanding. Made good contact, though, and was not the source of any trouble, being tightly crimped on the tube socket pin.

The complexity of modern electronics is only possible with machine assembly and waver or hot air soldering.

/scott

On 4/27/13 9:36 PM, WA5CAB at cs.com wrote:

> All of the SP-200 family sets I have ever seen or seen the TM's on use
> 6K7's in the RF stages.
>
> Someone or several someones at the factory just screwed up. I've heard
> of other similar examples over the years, including in military sets.
> Hanger queens right out of the box.
>
> Robert D.
>
> In a message dated 04/27/2013 22:36:25 PM Central Daylight Time,
> spr at earthlink.net writes:
>> Also, on some high frequency tubes the cathode is brought out to two
>> pins, to decrease the stray inductance in the cathode circuit.
>>
>> On types 1852, 1853, and 6AC7, the cathode is on pin 5.
>>
>> /scott
>>
>> On 4/27/13 7:38 PM, Roy Morgan wrote:
>> >

>> >On Apr 27, 2013, at 9:22 PM, Singley, Rodger wrote:
>> >
>> >>... the cathode connection (pin 8) of the second RF stage tube socket
>> >>was never connected to ground, the pin is pristine and virgin. ...
>> >>
>> >>So how in the hell could this ever have left the factory in that
>> >>condition?
>> >
>> >Roger,
>> >
>> >I can think of only one possible explanation (and I'm not suggesting
>> >it's the only one):
>> >
>> >The tube used in that socket when the radio was built was a different
>> >one than you expect. It's possible that a similar tube has the cathode
>> >(and grid 3, perhaps) tied to a different pin, which is connected to
>> >ground.
>> >
>> >In a number of tubes of that era, pin 1 is the metal shell of the metal
>> >version of a tube, and/or internal shield in the glass envelope
>> >version. Some radios had pin 1 not connected, or even had sockets with
>> >no pin 1 contact. So when you used a metal tube in that socket, the
>> >thing would oscillate or do other strange things.
>> >
>> >Maybe something like that situation was the case with your radio.
>> >
>> >I look forward to the ideas of other folks.
>> >
>> >Roy
>> >
>> >
>> >Roy Morgan
>> >k1lky at earthlink.net
>> >K1LKY Since 1958 - Keep 'em Glowing!
>
>
> Robert & Susan Downs - Houston
> wa5cab dot com (Web Store)
> MVPA 9480

From w7qho at aol.com Sun Apr 28 02:54:31 2013
From: w7qho at aol.com (mac)
Date: Sat, 27 Apr 2013 23:54:31 -0700
Subject: [BoatAnchors] Odd Hammarlund SP-400X experience
In-Reply-To: <0DEBF1C8D8437248BE53CD4213B89BD322EE59D0@ISUEMBX02.ad.ilstu.edu>
References: <0DEBF1C8D8437248BE53CD4213B89BD322EE59D0@ISUEMBX02.ad.ilstu.edu>
Message-ID: <DDB94400-C7D0-4331-9227-A5EDFB537D26@aol.com>

Unusual occurrence to be sure but it happens...

Dennis D. W7QHO
Glendale, CA

On Apr 27, 2013, at 6:22 PM, Singley, Rodger wrote (in part):

> And here is where it gets weird: the cathode connection (pin 8) of
> the second RF stage tube socket was never connected to ground, the
> pin is pristine and virgin. There is no sign whatsoever that the
> socket was changed, it matches and is riveted just like the others.
> The IF
> stages appear to be in reasonable alignment, the BFO is on
> frequency, and the HFO is well within normal alignment tolerance.
> Although I haven't gone through the full alignment yet signals are
> now coming through quite well now.
>
> So how in the hell could this ever have left the factory in that
> condition? It makes no sense to me

From k4oah at mindspring.com Sun Apr 28 10:00:15 2013

From: k4oah at mindspring.com (Garey Barrell)

Date: Sun, 28 Apr 2013 10:00:15 -0400

Subject: [BoatAnchors] Need help finding QST article (UPDATE)

In-Reply-To: <005601ce43c6\$7afe6100\$645e4d0c@yourxb2x7j77gn>

References:

<027501ce4297\$12317890\$369469b0@miamioh.edu><517AE71F.9080600@mindspring.com>

<035c01ce42d1\$8a5d9530\$9f18bf90@miamioh.edu>

<005601ce43c6\$7afe6100\$645e4d0c@yourxb2x7j77gn>

Message-ID: <517D2B6F.8040708@mindspring.com>

Jim -

There was a 'Feedback' the following month, apologizing for failing to credit the photographer!! Jim McCoy, W0LQV.

Interesting!

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

David Thompson wrote:

> It is indexed as "A Dead Art?" No author, no description of the
> transmitter,
> no call except in the article. Maybe ARRL could add a description
> and maybe the builder's name and call. Strange that ARRL did not
> tell us what staffer did the report.
> 73 Dave K4JRB
>
> ----- Original Message ----- From: "Jim Garland" <4cx250b at miamioh.edu>
> To: <k4oah at mindspring.com>; "'Boatanchors'" <boatanchors at theporch.com>
> Sent: Friday, April 26, 2013 6:58 PM
> Subject: Re: [BoatAnchors] Need help finding QST article (UPDATE)

>
>
>> Hi Garey,
>> Great! Thanks so much for tracking this down. I see now why the
>> Archive
>> search engine missed it. The title "A Dead Art?" certainly wasn't very
>> descriptive! Also, curiously, the article was evidently written by
>> a QST
>> staff member, since no author was listed. Harold was a remarkable
>> craftsman,
>> and anybody who has one of his creations has a treasure. However, I
>> don't
>> think he was the designer and builder of my "mystery transmitter,"
>> despite
>> some similar construction techniques. Soon, I'll make a posting on
>> what I've
>> learned about the transmitter, which is also a remarkable homebrew
>> effort.
>> 73,
>> Jim W8ZR
>>

>>> -----Original Message-----
>>> From: Garey Barrell [mailto:k4oah at mindspring.com]
>>> Sent: Friday, April 26, 2013 2:44 PM
>>> To: Jim Garland; Boatanchors
>>> Subject: Re: [BoatAnchors] Need help finding QST article (UPDATE)

>>> Jim -

>>>
>>> Here you go. January 1961. Easy to look at Page 55 of each month
>>> with the CDs! :-)) Of course I started with 1964 and worked
>>> backwards.....

>>>
>>> No 'author', and nothing in the title to indicate what it was. Tough
>>> to index.

>>>
>>> The CD scans are pretty crappy, but I have the hard copy, somewhere,
>>> If I can locate I can make a good PDF of it.
>>>
>>> 73, Garey - K4OAH
>>> Glen Allen, VA
>>>
>>> Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
>>> and TR-4/C Service Supplement CDs
>>> <www.k4oah.com>
>>>
>>> Jim Garland wrote:
>>> > Hi Gang,
>>> >
>>> > Many thanks to those of you helping me track down the QST
>>> article by
>> Harold
>>> > Bourell (W6NZ) on his homebrew rig. So far, no luck finding the
>>> > article,
>>> > which appears to have been missed by the QST archive search engine.
>> However,
>>> > last night I came across an old letter from Harold's XYL,
>>> Marguerite,
>> which
>>> > she sent me some years ago, along with the now-lost issue of QST.
>> Marguerrie
>>> > mentioned that the article was on page 55 of QST, and that the
>>> project
>> was
>>> > for a 1000 Watt SSB transceiver, not a transmitter as I'd
>>> remembered.
>> Her
>>> > letter makes for interesting reading, so here is an excerpt:
>>> >
>>> >
>>> >
>>> > "Harold doesn't have any notes on any of the gear he built. Any
>>> records
>> that
>>> > he had usually went with the gear. I can't think of anything
>>> that > Harold
>>> > would have enjoyed more than discussing [homebrew rigs] with
>>> you. The
>>> > mechanics of ham radio have always been his forte. He was never
>>> one for
>>> > "small talk." I would be the first one to agree with you that
>>> he built
>> some

```
>>> > beautiful ham gear. We have taken pieces to radio swap meets,
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>> guys
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>> He
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>>> Harold
>> built
>>> > was a 1000 Watt transceiver. The fellow who bought it was a
>>> friend of
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>>> > Meyerson who has a radio museum in Omaha. He told Harold he was
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>>> > nice, but he died suddenly of a heart attack and the transceiver
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>>> > I received that letter on March 3, 1998. Harold became an SK on
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>> 27,
>>> > 1999 at age 92, and Marguerite passed away January of this year.
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>>> >
>>> >
>>> > 73,
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>>> > Jim W8ZR
>>> >
>>> >
>>> >
>>> >
>>> >
>>> >
```

```
>>> > -----
>>> > BoatAnchors mailing list
>>> > BoatAnchors at theporch.com
>>> > https://minime.theporch.com/mailman/listinfo/boatanchors
>>> >
>>
>>
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>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/mailman/listinfo/boatanchors
>>
>
>
>
```

From rbsingl at ilstu.edu Sun Apr 28 10:30:31 2013
From: rbsingl at ilstu.edu (Singley, Rodger)
Date: Sun, 28 Apr 2013 14:30:31 +0000
Subject: [BoatAnchors] Odd Hammarlund SP-400X experience
In-Reply-To: <DDB94400-C7D0-4331-9227-A5EDFB537D26@aol.com>
References: <0DEBF1C8D8437248BE53CD4213B89BD322EE59D0@ISUEMBX02.ad.ilstu.edu>
<DDB94400-C7D0-4331-9227-A5EDFB537D26@aol.com>
Message-ID: <0DEBF1C8D8437248BE53CD4213B89BD322EE5B64@ISUEMBX02.ad.ilstu.edu>

I gave the SP-400X a thorough alignment. I found the crystal element in the filter needed cleaning and after that task I checked the IF alignment and BFO setting were already correct. The HFO was fairly close but the RF and mixer coils were quite a bit out. Best guess is that this receiver made it through a partial alignment when a problem was noted but somehow it ended up being shipped and sat for years in non-working condition. The dials look brand new (no yellowing) and the dial lights have none of the darkening typically seen in incandescent bulbs after hours of use.

It is hooked up to a vintage Hammarlund speaker and sounds great. I wish the Viking 1 I will be pairing it with looked as pristine.

Rodger WQ9E

Dr. Rodger B. Singley
Professor of Marketing

From: mac [mailto:w7qho at aol.com]
Sent: Sunday, April 28, 2013 1:55 AM
To: Singley, Rodger

Cc: Boatanchors
Subject: Re: [BoatAnchors] Odd Hammarlund SP-400X experience

Unusual occurrence to be sure but it happens...

Dennis D. W7QH0
Glendale, CA

From 4cx250b at miamioh.edu Sun Apr 28 11:02:58 2013
From: 4cx250b at miamioh.edu (Jim Garland)
Date: Sun, 28 Apr 2013 09:02:58 -0600
Subject: [BoatAnchors] "Mystery Transmitter" Update
Message-ID: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>

Hi Gang,

As promised, here's an update on the "mystery transmitter" that was sent to me by Gary KB2LCA a week ago. Gary bought the radio on eBay about six years ago. Although he is not a collector, Gary recognized its uniqueness and acquired it so that it wouldn't be scrapped for the components. The transmitter is a fascinating piece of homebrew equipment -- the nicest example of the homebrew art from the vacuum tube era I've ever seen -- but its origin is a complete mystery.

The transmitter is a bandswitched table-top SSB/CW filter-type transmitter that runs about 400W. It has twenty-two tubes, including two 0A2 regulators and a 4x150A final. Most of the tubes are garden variety 12AT7s, 6AL5s, 6BE6s, 6CL6s, etc., but there are a couple of unusual choices: one 6HR6 (a pentode, described by GE as an IF amplifier) and two 7360s. I vaguely recall the 7360 used as the front end mixer in the old Squires-Sanders receiver. The 7360s are used for the transmitter's two mixers. Although I've not done an exhaustive search, the transmitter doesn't appear to be based on the circuitry of any commercial transmitter of the era.

I. Transmitter Circuitry

It will not be easy to deconstruct the circuit of the transmitter because of its unusual construction. With the exception of the PA compartment, the circuitry is mostly housed in four subchasses which mount on top of the main chassis. Thus, the underside of the main chassis is mostly wiring harnesses and shielded cables that interconnect the four subchasses. The wires from the subchasses go through grommets into the main chassis and mostly terminate on screw-terminal barrier strips. Thus it is possible in principle to undo the wires from the barrier strips to remove the modules for

inspection, except for the fact that the numerous shielded cables have their shields soldered together in clusters. I am worried that unsoldering these might damage the cables and, lacking a circuit diagram, have not tried to remove any of the modules for inspection. Thus, any information about the circuit, is intuited mostly from the tube layout and the crystals.

The transmitter does not have a power supply, but rather has external power connectors on the rear panel. However, instead of having one socket for filament, low voltage, bias and high voltage, as one would normally find, it has separate 5,6,8, and 11 pin power connectors, plus a Millen HV connector. Thus it is possible to power up any of the modules separately, applying filaments, bias, plate voltage independently, and this was done presumably for alignment and troubleshooting convenience.

Although the transmitter's exact circuitry will be difficult to divine, I'm pretty sure I've deduced the overall block diagram. The crystal frequencies (eight are used for the different bands), in combination with the 455 kHz mech filter, make it possible to unwind the conversion scheme and VFO tuning range. Here are the frequencies:

Band	Crystal
3.5	5245
(I believe this should be 5250, same as the 14.0 xtal, so there would have been a slight calibration error on 80m)	
7.0	1750
14.0	5250
21.0	12250
28.0	19250
28.5	19750
29.0	20250
29.5	20750

After noodling around the crystal frequencies, it's clear the signal coming

from the balanced modulator goes through a Collins 2.1 kHz mechanical filter into a 7360 mixer, which mixes the 455 KHz SSB signal with the VFO output. The VFO tunes 9.205 MHz to 9.705 MHz. (Actually, the VFO may tune half this range and go through a doubler, but there's no way to tell that.) After amplification through tunable IF stages, the difference signal of 8.750-9.250 MHz goes into a second 7360 mixer, which mixes it with one of the crystal frequencies. Additive mixing is used for the 3.5 and 7.0 MHz bands, while difference mixing is used for the higher bands. The output of this second mixer is at the desired RF output frequency which, after amplification, drives the 4X150A final.

There are two curious circuit features that I don't understand. One is that there are no balanced modulator carrier injection crystals (e.g., 443.8 kHz and 456.2 kHz). I suppose these could be hidden inside a subchassis, but all the other crystals are topside. Instead, there are two crystals near the balanced modulator with frequencies of 3256.4 KHz and 2344.0 KHz. I note that the difference frequency of these two crystals is 912.4 kHz, which is twice the 456.2 kHz one might expect for a balanced modulator injection frequency. Presumably, there is some sort of mixing process which yields the correct injection frequencies for USB and LSB, but I'm at a loss to explain it. The other curious feature is a largish crystal marked "300 Cys" mounted next to the Collins mechanical filter, and I have no idea what that is or what it is used for, given that a 300 Hz crystal would appear to be an impossibility.

The audio stages before the balanced modulator include an audio clipper and VOX (with clipping level, VOX sensitivity, anti-trip and time delay front panel controls), and are presumably of conventional design.

II. Workmanship and Mechanical Features

From the photographs, the transmitter enclosure resembles that used in vintage Hammarlund receivers. However, the transmitter's enclosure is entirely homebrewed, including the aluminum trim ring. All the aluminum covers have a baked enamel finish, with lettering applied using press-on letters, followed by an overspray of an acrylic Krylon-like preservative. The attention to detail evident in the workmanship is remarkable. For example, the two mystery crystals (mentioned above) are mounted on a custom fixture which plugs into a miniature tube socket on the top of a subchassis. The fixture is housed within a beautifully crafted tiny aluminum enclosure. The crystal frequencies ("3256.4") and ("2344.0") are written on two tiny paper labels glued on the inside of the enclosure, out of sight, each about

3/4 inch by 1/4 inch. The labels have faint penciled guidelines for the lettering, which was done in ink and is so neat as to look almost like commercial printing. The builder was one compulsive guy!

The front panel knobs for the PA tune and load capacitors are offset from the capacitors, and are coupled by ingenious homebrewed pulley-like mechanisms using braided phosphor-bronze wire and shaft couplers. The turning torque for the knobs is adjustable by adjusting the tension of a separate phosphor-bronze wire that applies friction to the capacitor tuning shaft. A clever innovation that I've not seen before.

The transmitter's PA compartment is a marvel of compact engineering layout and design. The bandswitch, large copper tubing tank coil and smaller ceramic core inductor, the tune and load capacitors, several Centralab 850 doorknob capacitors, and the subchassis for the 4X150A and its neutralizing capacitor, are all housed in a small 4.5"W x 8"L x 7.5"D aluminum PA compartment. A tiny squirrel cage blower mounted on the rear of the compartment forces air into 4CX150A subchassis. The air intake for the blower is through a rectangular grid of 225 (!) precisely spaced 1/16" diameter holes drilled in the right side panel of the transmitter's enclosure. All the components appear to be top-of-the-line quality for the era, including Allen-Bradley pots, heavy ceramic bandswitch, Simpson panel meters, etc.

III. History and Clues to the Builder

There is only one electrolytic capacitor under the chassis (the others are hidden in the subchasses), a Sprague Atom which fortunately has a date code indicating it was manufactured in the 13th week of 1961. The Eimac JAN 4X150A has a date code of 34th week of 1965. Of course, one doesn't know if the PA tube was original, but from the circuit design I'm guessing the radio was designed and built in the mid-1960s. I've scoured the internet for clues as to its designer and builder(s), but to no avail. Somewhere, somebody must recognize this radio and know its history. It's not the kind of work that would go unnoticed by the larger amateur community.

So that's the current status of this radio. I'd appreciate any thoughts or suggestions you might have. As a reminder, you can see photos at

<http://w8zrmysteryhomebrewtransmitter.shutterfly.com/pictures/8>

Tnx and 73,

Jim Garland W8ZR

From k4oah at mindspring.com Sun Apr 28 11:26:42 2013
From: k4oah at mindspring.com (Garey Barrell)
Date: Sun, 28 Apr 2013 11:26:42 -0400
Subject: [BoatAnchors] "Mystery Transmitter" Update
In-Reply-To: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
Message-ID: <517D3FB2.8090703@mindspring.com>

Jim -

Couple of things.

1. The dial shows all bands tuning in the same direction. Wouldn't the bands using the difference mixer product tune 'backwards'?
2. The '300 Hz' module may be a homebrew crystal filter.?
3. The knobs look to be from a Viking II.

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
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Jim Garland wrote:

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> the 7360 used as the front end mixer in the old Squires-Sanders receiver. The
> 7360s are used for the transmitter's two mixers. Although I've not done an
> exhaustive search, the transmitter doesn't appear to be based on the
> circuitry of any commercial transmitter of the era.
>
>

From 4cx250b at miamioh.edu Sun Apr 28 12:10:05 2013
From: 4cx250b at miamioh.edu (Jim Garland)
Date: Sun, 28 Apr 2013 10:10:05 -0600
Subject: [BoatAnchors] "Mystery Transmitter" Update
In-Reply-To: <517D3FB2.8090703@mindspring.com>
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
<517D3FB2.8090703@mindspring.com>
Message-ID: <077201ce442a\$d92922b0\$8b7b6810@miamioh.edu>

Hi Garey,

Thanks for your comments. Re the conversion scheme, I'm pretty sure the radio
tunes "forwards" on all bands (though I think I reversed "add" and
"subtract" in my description.) Here's an explanation.

1. First Mixer. The first mixer subtracts 455 kHz from the VFO signal
(9.205-9.705) yielding a tunable IF of 8.750-9.250.

2 Second Mixer: (using 40m and 15m as an example):

On 40m, the mixer SUBTRACTS a 1750 xtal from the tunable IF
frequency, yielding
 $8750 - 1750 = 7000$ (low end of band) and $9250 - 1750$
 $= 7450$ (high end of band)

On 15m, the mixer ADDS a 12250 xtal to the tunable IF frequency,
yielding
 $8750 + 12250 = 21000$ (low end of band) and
 $9250 + 12250 = 21450$ (high end of band)
So in each case (and on all the other bands) the tuning is always "forward"
in the sense that the lowest VFO frequency corresponds to the low end of the
band segment.

Interesting suggestion about the strange "300 Cys" object, but it's just a
tiny bit larger than an FT243 xtal, so I doubt it's a crystal filter. I'll
take a closer look at it.

Tnx for the Viking 2 knob info. I knew the knobs resembled EFJ knobs, but
they didn't match my Ranger, Valiant, or Viking 500, and I don't have a
Viking 2.

73,
Jim W8ZR

> -----Original Message-----
> From: Garey Barrell [mailto:k4oah at mindspring.com]
> Sent: Sunday, April 28, 2013 9:27 AM
> To: Jim Garland; BoatAnchors at theporch.com
> Subject: Re: [BoatAnchors] "Mystery Transmitter" Update
>
> Jim -
>
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>
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> > The transmitter is a bandswitched table-top SSB/CW filter-type
> transmitter
> > that runs about 400W. It has twenty-two tubes, including two 0A2
> regulators
> > and a 4x150A final. Most of the tubes are garden variety 12AT7s, 6AL5s,

> > 6BE6s, 6CL6s, etc., but there are a couple of unusual choices: one 6HR6
(a
> > pentode, described by GE as an IF amplifier) and two 7360s. I vaguely
recall
> > the 7360 used as the front end mixer in the old Squires-Sanders
receiver. The
> > 7360s are used for the transmitter's two mixers. Although I've not done
an
> > exhaustive search, the transmitter doesn't appear to be based on the
> > circuitry of any commercial transmitter of the era.
> >
> >

From wb3fau55 at neo.rr.com Sun Apr 28 12:33:27 2013
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Sun, 28 Apr 2013 12:33:27 -0400
Subject: [BoatAnchors] Odd Hammarlund SP-400X experience
In-Reply-To: <0DEBF1C8D8437248BE53CD4213B89BD322EE5B64@ISUEMBX02.ad.ilstu.edu>
Message-ID: <20130428163327.LA6QH.155714.root@cdptpa-web25-z02>

Hi Roger, a few years back, I got a SP400. I got it for a song. When I got it powered up, smoke came out!

There were 3 shorted RF bypass caps in the front end! Lucky no other serious damage- [no fried coils!] I replaced the caps and it took off. Evidently, it was hit by lightening or strong RF. A nice item, except for the size and separate power supply. Very sensitive and continuously variable IF bandpass up to 12KC wide! 73 Russ.

----- "Singley wrote:

> I gave the SP-400X a thorough alignment. I found the crystal element in the filter needed cleaning and after that task I checked the IF alignment and BFO setting were already correct. The HFO was fairly close but the RF and mixer coils were quite a bit out. Best guess is that this receiver made it through a partial alignment when a problem was noted but somehow it ended up being shipped and sat for years in non-working condition. The dials look brand new (no yellowing) and the dial lights have none of the darkening typically seen in incandescent bulbs after hours of use.

>

> It is hooked up to a vintage Hammarlund speaker and sounds great. I wish the Viking 1 I will be pairing it with looked as pristine.

>

> Rodger WQ9E

>

> Dr. Rodger B. Singley

> Professor of Marketing

>
>
> From: mac [mailto:w7qho at aol.com]
> Sent: Sunday, April 28, 2013 1:55 AM
> To: Singley, Rodger
> Cc: Boatanchors
> Subject: Re: [BoatAnchors] Odd Hammarlund SP-400X experience
>
> Unusual occurrence to be sure but it happens...
>
> Dennis D. W7QH0
> Glendale, CA
>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From 1oldlens1 at ix.netcom.com Sun Apr 28 13:40:46 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Sun, 28 Apr 2013 10:40:46 -0700
Subject: [BoatAnchors] "Mystery Transmitter" Update
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
Message-ID: <FF2FB601496E46D3B6E4020FD5B613F1@VALUED20606295>

----- Original Message -----

From: "Jim Garland" <4cx250b at miamioh.edu>
To: <boatanchors at theporch.com>
Sent: Sunday, April 28, 2013 8:02 AM
Subject: [BoatAnchors] "Mystery Transmitter" Update

> Hi Gang,
>
> As promised, here's an update on the "mystery transmitter"
> that was sent to
> me by Gary KB2LCA a week ago. Gary bought the radio on
> eBay about six years
> ago. Although he is not a collector, Gary recognized its
> uniqueness and
> acquired it so that it wouldn't be scrapped for the
> components. The
> transmitter is a fascinating piece of homebrew
> equipment -- the nicest
> example of the homebrew art from the vacuum tube era I've

> ever seen -- but
> its origin is a complete mystery.

The 7360 is a beam deflection tube. These were popular for a time as balanced modulators and product detectors. Hallicrafters used them in at least one transmitter. When used in a suitable circuit the beam deflection tube gives very good carrier suppression and is very linear. It can also be used as a mixer stage in a receiver or transmitter. In receivers they can have exceptionally good dynamic range, that is, very low intermodulation. RCA had extensive application information available for them when they were new. I think they were also widely used in color television receivers.

At any rate they would have been state of the art at the time this transmitter was built.

--
Richard Knoppow
Los Angeles
WB6KBL
dickburk at ix.netcom.com

From w7qho at aol.com Sun Apr 28 13:53:30 2013
From: w7qho at aol.com (mac)
Date: Sun, 28 Apr 2013 10:53:30 -0700
Subject: [BoatAnchors] SAILOR 1000 series radio
Message-ID: <2096BC52-5F8E-4A30-AFBF-08DC72101A69@aol.com>

Anybody know anything about this radio?

<<http://www.peel.dk/SP/Sailor%20S1303-S1304.pdf>>

Dennis D. W7QH0
Glendale, CA

From 1oldlens1 at ix.netcom.com Sun Apr 28 13:56:44 2013
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Sun, 28 Apr 2013 10:56:44 -0700
Subject: [BoatAnchors] Odd Hammarlund SP-400X experience
References: <20130428163327.LA6QH.155714.root@cdptpa-web25-z02>
Message-ID: <48C45F26847442CD8EF5BAA711AA426A@VALUED20606295>

----- Original Message -----

From: <wb3fau55 at neo.rr.com>

To: "Boatanchors" <boatanchors at theporch.com>; "Singley, Rodger" <rbsingl at ilstu.edu>

Sent: Sunday, April 28, 2013 9:33 AM

Subject: Re: [BoatAnchors] Odd Hammarlund SP-400X experience

> Hi Roger, a few years back, I got a SP400. I got it
> for a song. When I got it powered up, smoke came out!
> There were 3 shorted RF bypass caps in the front end!
> Lucky no other serious damage- [no fried coils!] I
> replaced
> the caps and it took off. Evidently, it was hit by
> lightening or strong RF. A nice item, except for the size
> and separate
> power supply. Very sensitive and continuously variable
> IF bandpass up to 12KC wide! 73 Russ.
>

About the only modification I found useful in the Super-Pro was the addition of voltage regulation to the L0. There is a tendency for the AVC or RF gain to pull the L0 as the current to the RF and IF tubes changes. I used a VR tube in my BC-779 but these days a zener diode makes more sense.

FWIW, the SP-400 uses the same RF configuration that the 40 Mhz version of the earlier SP did, that is, the plates of the RF are shunt fed rather than series fed. I think the idea was that keeping DC out of coils would increase the Q since they have iron cores. The plate load is in the form of chokes.

The Super-Pro also had electro-static screens (Faraday shields) between the primary and secondary of the antenna transformers to eliminate capacitive coupling. You can see these when the bottom cover is off the tuning unit.

The maximum IF bandwidth is actually about 16 Khz. The transformers are slightly under coupled at minimum so IF alignment is simple as opposed to say an HQ-120-X or 120-X or RCA AR-88 where the transformers are overcoupled all the time and must be aligned with a sweeper.

The crystal filter is the same as used in the HQ-120-X and later Hammarlund receivers. It is a Hammarlund patent and the best of the single crystal filters. The crystal load coil is adjusted for the _widest_ bandwidth at the wide crystal bandwidth setting. There is an undocumented trimmer capacitor inside the crystal filter compartment for getting

an exact balance of the stray mounting capacitance. When set correctly the front panel phasing capacitor will be at its exact center when set for no notch. As you discovered the crystal is in an open (I mean not sealed) holder. The crystal surfaces and the surfaces of the plates should be cleaned with a solvent which does not leave a residue. My memory is that the plates have rounded edges on one side but not the other. The rounded side should face the crystal.

The last of the SP-400 series had a temperature compensating cap across the tuning capacitor, something Hammarlund should have done much earlier and knew how to do (along with voltage regulation) since they applied both in the HQ-120-X. However, if left running continuously it is quite stable.

I used a BC-779 as my first station receiver (still have it) and tested many RF and mixer modifications in it using socket adaptors so as not to do surgery on the receiver itself. The original configuration works very well despite the rather noisy tubes used.

--

Richard Knoppow
Los Angeles
WB6KBL
dickburk at ix.netcom.com

From k1lky at earthlink.net Sun Apr 28 14:15:21 2013
From: k1lky at earthlink.net (Roy Morgan)
Date: Sun, 28 Apr 2013 14:15:21 -0400
Subject: [BoatAnchors] "Mystery Transmitter" Update
In-Reply-To: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
Message-ID: <02D29A31-164F-41C8-81D8-7FB96A9B92B5@earthlink.net>

On Apr 28, 2013, at 11:02 AM, Jim Garland wrote:

> ... a Millen HV connector.

Jim,

I presume the HV used was not as high as the older triode transmitters used (2 to 3 kv), but I send along this alert anyway:

I've seen a first hand post that tells how a Millen HV connector nearly killed the fellow. He was messing with something while

reaching behind the transmitter when the Millen connector allowed the HV to leap out and drill a hole in his hand. He was knocked back away from the equipment and got his seeing and heartbeat back after just a little while. Later, his composure returned and a period of prayers expressing thankfulness for being still alive followed that.

My guess is that the voltage was well above the 7-800 expected with 6146's and that the connector had some dust/dirt/oil to allow a leakage path.

The later KWS-1 used an Amphenol one-pin high voltage connector (about 2 kv, I think) whereas the early ones used the Millen connector I think. 'Wish I had a small box full of those MS type HV connectors - they were made in two sizes. It's quite possible that Wm. Perry still has them.

Roy

Roy Morgan
k1lky at earthlink.net
K1LKY Since 1958 - Keep 'em Glowing!

From k4oah at mindspring.com Sun Apr 28 14:44:05 2013
From: k4oah at mindspring.com (Garey Barrell)
Date: Sun, 28 Apr 2013 14:44:05 -0400
Subject: [BoatAnchors] "Mystery Transmitter" Update
In-Reply-To: <02D29A31-164F-41C8-81D8-7FB96A9B92B5@earthlink.net>
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
<02D29A31-164F-41C8-81D8-7FB96A9B92B5@earthlink.net>
Message-ID: <517D6DF5.1090709@mindspring.com>

Interesting.... Millen rates(d) the 37001 series of HV connectors for 7,000 VDC and 2 A. Either the guy had especially active DC, or more likely, either the cable or connector had been damaged. I know all about 'optimistic' specifications, but 7,000 VDC 'seems' like enough safety factor.

I won't comment on the wisdom of 'reaching behind a transmitter' blindly.....

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line

and TR-4/C Service Supplement CDs
<www.k4oah.com>

Roy Morgan wrote:

>
> On Apr 28, 2013, at 11:02 AM, Jim Garland wrote:
>
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>
> Jim,
>
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> nearly killed the fellow. He was messing with something while
> reaching behind the transmitter when the Millen connector allowed
> the HV to leap out and drill a hole in his hand. He was knocked back
> away from the equipment and got his seeing and heartbeat back after
> just a little while. Later, his composure returned and a period of
> prayers expressing thankfulness for being still alive followed that.
>
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> 6146's and that the connector had some dust/dirt/oil to allow a
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>
> The later KWS-1 used an Amphenol one-pin high voltage connector
> (about 2 kv, I think) whereas the early ones used the Millen
> connector I think. 'Wish I had a small box full of those MS type HV
> connectors - they were made in two sizes. It's quite possible that
> Wm. Perry still has them.
>
> Roy
>
> Roy Morgan
> k1lky at earthlink.net
> K1LKY Since 1958 - Keep 'em Glowing!

From k4oah at mindspring.com Sun Apr 28 15:51:11 2013
From: k4oah at mindspring.com (Garey Barrell)
Date: Sun, 28 Apr 2013 15:51:11 -0400
Subject: [BoatAnchors] "Mystery Transmitter" Update
In-Reply-To: <E21C9D10-B53D-45A5-B99B-80A88C290485@earthlink.net>
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
<02D29A31-164F-41C8-81D8-7FB96A9B92B5@earthlink.net>
<517D6DF5.1090709@mindspring.com>

<E21C9D10-B53D-45A5-B99B-80A88C290485@earthlink.net>
Message-ID: <517D7DAF.5080205@mindspring.com>

As Elmer Fudd was known to say, 'Be vewy, vewy careful'. :-)

Anything can get you. I got caught by a house fuse in the neutral line (the lights went off, didn't they) replacing a ceiling fixture for my Mom. Standing on a soft hassock in the basement, balancing by holding on to the old 'BX' (spiral metal covered) cable, stuffing friction tape splices up into the out box, when my 'electrician's pliers' cut through the friction tape. Could NOT let go, and the only thing that saved me was I fell off of the hassock. If I'd been on a ladder, or other stable platform..... That was 50 years ago, and I recall it quite clearly! :-) Ever since EVERY lead is metered to EVERY OTHER lead and to ground before I touch anything!

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Roy Morgan wrote:

>
> On Apr 28, 2013, at 2:44 PM, Garey Barrell wrote:
>
>> Interesting.... Millen rates(d) the 37001 series of HV connectors
>> for 7,000 VDC and 2 A.
>
> Ah, I did not know/remember the ratings.
>
>> Either the guy had especially active DC, or more likely, either
>> the cable or connector had been damaged.
>
> I suspect some damage.
> "Oh, I'll replace that cracked connector one day" is not wise.
> It used to be that I would think: "I might forget such a thing."
> Now, I know I will!
>
>> I won't comment on the wisdom of 'reaching behind a transmitter'
>> blindly.....
>
> Certainly seems unwise.
>
> I know a fellow who's worked on transmitters of all sizes for a very
> long time. A while ago, he got across some High Voltage that would
> have killed him. The other fellow working with him pulled him off.

> My lesson from that is: even I, with MUCH less experience, can get
> caught. So, be VERY careful.
>
> Roy
>
> Roy Morgan
> k1lky at earthlink.net
> K1LKY Since 1958 - Keep 'em Glowing!
>
>
>
>

From 4cx250b at miamioh.edu Sun Apr 28 16:12:12 2013
From: 4cx250b at miamioh.edu (Jim Garland)
Date: Sun, 28 Apr 2013 14:12:12 -0600
Subject: [BoatAnchors] "Mystery Transmitter" Update
In-Reply-To: <02D29A31-164F-41C8-81D8-7FB96A9B92B5@earthlink.net>
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
<02D29A31-164F-41C8-81D8-7FB96A9B92B5@earthlink.net>
Message-ID: <082201ce444c\$ac733e00\$0559ba00@miamioh.edu>

On the general subject of the Millen HV connector, here's an excerpt from an article I wrote for this month's QEX (about an HV power supply): "Safely routing several thousand volts through the rat's nest of cables behind the typical operating desk is a serious and expensive enterprise, and manufacturers are no longer willing to assume the risk of using a single unshielded wire to do the job. (Although used in many commercial designs several decades ago, no manufacturer would today consider using the classic J.W. Millen HV connector, which has no strain relief and uses an unshielded conductor held in place by a single blob of solder.)"

It's shocking (no pun intended) to think about the cavalier way we used to handle HV in the olden days. I remember an ARRL Handbook amplifier (maybe it was in QST or CQ) that used an SO-239 jack for the HV and an identical jack for the antenna. Talk about an accident waiting to happen! In my opinion, the HV connector of choice these days for voltages of 5kV or less is the SHV-RP BNC connector. They are inexpensive (\$5 for either a plug or chassis jack, made in China, available on eBay), use RG6 coax, do not mate with ordinary BNC jacks (the "RP" means reverse polarity, so that the female pin is in the plug) and are designed so that the grounded shield always makes or breaks before the center conductor.

73,
Jim W8ZR

> -----Original Message-----

> From: Roy Morgan [mailto:k1lky at earthlink.net]
> Sent: Sunday, April 28, 2013 12:15 PM
> To: Jim Garland
> Cc: Boatanchors List
> Subject: Re: [BoatAnchors] "Mystery Transmitter" Update
>
>
> On Apr 28, 2013, at 11:02 AM, Jim Garland wrote:
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> > ... a Millen HV connector.
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> they were made in two sizes. It's quite possible that Wm. Perry still
> has them.
>
> Roy
>
> Roy Morgan
> k1lky at earthlink.net
> K1LK Y Since 1958 - Keep 'em Glowing!
>
>

From k4oah at mindspring.com Sun Apr 28 16:27:50 2013
From: k4oah at mindspring.com (Garey Barrell)
Date: Sun, 28 Apr 2013 16:27:50 -0400

Subject: [BoatAnchors] "Mystery Transmitter" Update
In-Reply-To: <082201ce444c\$ac733e00\$0559ba00\$miamioh.edu>
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
<02D29A31-164F-41C8-81D8-7FB96A9B92B5@earthlink.net>
<082201ce444c\$ac733e00\$0559ba00\$miamioh.edu>
Message-ID: <517D8646.7050803@mindspring.com>

I don't recall ever being 'cavalier' around even moderate HV. I believe the difference is that today the 'nanny state' has so taken over our day-to-day lives that we just ASSUME that 'Nanny is watching our for me, so I don't need to worry....' Or think!

We knew there were dangerous voltages in our gear, my L-4B has had a Millen HV connector on it for 35 years and it's never shocked me. But then I know better than to reach around the back of a transmitter with the HV ON!! We treated electrical, mechanical and other potentially dangerous products with respect.

Now we have labels on products like 'Nytol - May cause drowsiness'. 'Hair dryer - Do not use in shower'. 'Dessert box - Do not turn box upside down' (Printed on bottom, of course.)

73, Garey - K40AH
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line
and TR-4/C Service Supplement CDs
<www.k4oah.com>

Jim Garland wrote:

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> handle HV in the olden days.
>

>> -----Original Message-----

>> From: Roy Morgan [mailto:k1lky at earthlink.net]

>>

>>

>> On Apr 28, 2013, at 11:02 AM, Jim Garland wrote:

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>>> ... a Millen HV connector.

>> Jim,

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>>
>> Roy
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>> Roy Morgan
>> k1lky at earthlink.net
>> K1LKY Since 1958 - Keep 'em Glowing!
>>
>>
>

From w3nu at roadrunner.com Sun Apr 28 21:14:58 2013
From: w3nu at roadrunner.com (Charles Ring)
Date: Sun, 28 Apr 2013 21:14:58 -0400
Subject: [BoatAnchors] "Mystery Transmitter" Update
In-Reply-To: <517D7DAF.5080205@mindspring.com>
References: <06de01ce4421\$794e0990\$6bea1cb0\$miamioh.edu>
<02D29A31-164F-41C8-81D8-7FB96A9B92B5@earthlink.net>
<517D6DF5.1090709@mindspring.com>
<E21C9D10-B53D-45A5-B99B-80A88C290485@earthlink.net>
<517D7DAF.5080205@mindspring.com>
Message-ID: <517DC992.1020709@roadrunner.com>

In 2006 I got a shock from a light fixture that I was repairing at a
broadcast station. I thought power was shut off, but it turned out that
the 3-way switches were in the neutral line. This was wiring done by
real electricians in rigid conduit, probably circa 1960.

On 4/28/2013 1551, Garey Barrell wrote:
> As Elmer Fudd was known to say, 'Be vewy, vewy careful'. :-)
>
> Anything can get you. I got caught by a house fuse in the neutral

> line (the lights went off, didn't they) replacing a ceiling fixture
> for my Mom. Standing on a soft hassock in the basement, balancing by
> holding on to the old 'BX' (spiral metal covered) cable, stuffing
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> ladder, or other stable platform..... That was 50 years ago, and I
> recall it quite clearly! :-) Ever since EVERY lead is metered to EVERY
> OTHER lead and to ground before I touch anything!

From gsantacana at gmail.com Tue Apr 30 23:19:45 2013

From: gsantacana at gmail.com (Guido Santacana)

Date: Tue, 30 Apr 2013 23:19:45 -0400

Subject: [BoatAnchors] SP210SX

Message-ID: <CA01yix3BBJDncpNr40toaB06jQd0ju13=SnRyPutMRoq3C7vKw@mail.gmail.com>

Gentlemen

The SP210SX has recovered its voice. The interstage audio transformer T7 with the open primary was replaced with one from an SP110. I took the opportunity to replace a couple of resistors with values way over tolerance. capacitors in this section had already been replaced. Now a good cleanup and back to the original cabinet. This is one of my favorite rigs. T7 was the victim of many years combined with tropical humidity, part of the wonders of maintaining a BA collection in the tropics or torrid zone as these latitudes were called in the middle ages. It would be interesting to know if anyone has found a good alternative for T7 among available transformers.

Next project is my SX28. The bandspread indicator cord just broke. I have an epidemic of problems all humidity related even though I cycle my radios regularly.

Thanks for all the help guys

73s

Guido KP4FAR

From franklin6209 at att.net Tue Apr 30 22:54:31 2013

From: franklin6209 at att.net (Gary Franklin)

Date: Tue, 30 Apr 2013 22:54:31 -0400

Subject: [BoatAnchors] Hard Bound Heathkit Catalog

Message-ID: <518083E7.3080108@att.net>

I have acquired a series of Heatkit hard bound catalogs from a former Heathkit employee. I have posted a video on YouTube that you can view. Just click on the hyperlink below or copy and paste it to your browser. Let me know if you have seen any of these and what they were used for.

Thanks,

Gary, K8BKB

<http://youtu.be/-PzS1erZYpI>